BCS70 Video Call Pilot Report of pilot stage

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1 Executive Summary

1.1 Pilot objectives and design

Due to the difficulties of conducting in-person interviews during the Covid-19 pandemic, in September - October 2020 a small 4-week pilot was conducted in which BCS70 respondents were interviewed by video call (Computer Assisted Video Interviewing – "CAVI"). The purpose of this pilot was to explore the feasibility of using this approach more widely and to make suggestions for how this could be improved in the future.

Key features of the pilot approach were:

• MS Teams

We used MS Teams because our initial testing demonstrated this platform was technically feasible for both NatCen and Kantar to implement and it provided the required functionality and data security to conduct the envisaged interview

Adaptations for the video calling approach

The adaptations we made to the existing approach for the video calling approach included:

- Editing respondent-facing materials (e.g., "showcards" and informational leaflets) and interviewer screens being shared with respondents using the "share screen" function
- Replacing the self-completion component (CASI), where interviewers normally
 pass their laptops to the respondent to complete on their own, with a web
 questionnaire that respondents were asked to complete during the interview
 (with the link being sent via the MS Team chat window)
- Removing the BCS70 Letter Cancellation cognitive assessment due to the requirement that the participant uses a physical booklet in which to cross out letters

60 cohort members

We selected a sample of 60 BCS70 cohort members, intentionally skewed to include those more engaged members and those who had indicated a willingness to participate in a video-call interview in a previous online survey

6 interviewers

We selected 6 interviewers for the pilot: 3 from NatCen and 3 from Kantar. We selected the interviewers on the basis that they said they were relatively comfortable with technology, although not necessarily with experience of video calling platforms. We trained the interviewers in video call interviewing and protocols.

1.2 Key findings of pilot

44 cohort members successfully completed a video call interview. Feedback from both cohort members and interviewers was very positive with only 3 respondents saying they would have much preferred a face-to-face interview, and some even expressing a

preference for video call interviewing as it was less intrusive on their household. Some respondents were initially hesitant about their ability to do a video call interview but, with encouragement, successfully completed one.

Most respondents used a laptop to join the call but 5 used a smartphone and 7 used a tablet.

The various questionnaire modules were conducted successfully and comparably with the CAPI approach. Sharing stimulus materials via the share screen function worked in all cases, although the efficiency of this process was affected by internet connection speeds and also interviewer familiarity with the software. Despite a relatively long interview at around an hour and a half, there were no break-offs and interviewers reported engagement throughout.

The conclusion of this small-scale pilot is that carrying out BCS70 interviews via video call is technically feasible and enables a good quality interview that faithfully replicates that of the CAPI. Participation rates in this pilot were high and the experience for cohort members and interviewers was positive, but the approach will exclude some cohort members who do not have the required technology or capability.

We note that some sorts of survey measures are not possible to collect via video call (e.g. bio-measures collected by nurse visits). Also, some types of cognitive assessment will not work (e.g. the Letter Cancellation task). We note that CAVI is perhaps more feasible for longitudinal surveys such as BCS70 than for ordinary cross-sectional surveys because we have existing relationships with cohort members and good contact information which enables interviewers to schedule appointments. We also recognise that those invited to take part in this pilot were particularly engaged.

A number of improvements were identified through the pilot which could improve participant experience and reduce the length of the interview. These include:

- Simplifying the initial invitation to make it easier to join the call
- Streamlining transitions between visual prompts
- Reformatting leaflets to enhance on-screen readability
- Tidying up technical glitches, such as the method for providing links to the web selfcompletion.

In addition, through this pilot we have learned a great deal about the focus and format of interviewer training and best practice in video-call interviewing. Carrying out an interview via video call requires the development of some technical skills that are new to interviewers. All interviewers who carried out fieldwork on this pilot managed to acquire these skills, but for some it involved a considerable amount of practice.

1.3 Recommendations for next steps

Video call interviewing provides a feasible data collection option for many but will not be technically possible for a subgroup of cohort members. Further, the lack of an inperson approach to encourage participation is likely to lead to lower response rates overall. It is envisaged that, where Covid-19 restrictions allow, CAVI would be a mode offered alongside a CAPI approach, with those unable or unwilling to allow an interviewer into their home offered CAVI. For those who are also unable technically to conduct a CAVI interview, a CATI approach may be necessary.

Given the technical skills required and the improvements made with familiarity with the approach, there is a case for focusing CAVI interviews among a smaller group of interviewers. This would mean that cases would be reallocated to this group where CAPI interviewers encountered cohort members who did not wish to conduct an inhome interview. Our field teams will need to consider how to select interviewers to train in this approach and how specialist the interviewer group should be.

We suggest that a CAVI-CAPI approach may work for both BCS70 and NCDS (although clearly nurse visits can only be done in-person).

Our recommendations, which are set out in more detail in section 13.4, are:

- Move forward with developing and testing an integrated CAVI-CAPI approach (incorporating the improvements identified by this pilot)
- Carry out a substantial CAVI-CAPI pilot of 300 cohort members with the NCDS cohort
- Set a post-pilot decision-point on soft launch vs pilot for BCS70.

2 Introduction

This report provides findings and recommendations from the video call pilot study for the 1970 British Cohort Study (BCS70) Age 50 Survey. Due to the difficulties of conducting in-person interviews during the Covid-19 pandemic, in September-October 2020 a small pilot was conducted in which BCS70 respondents were interviewed by video call. The purpose of this pilot was to explore the feasibility of using this approach more widely and to make suggestions for how this could be improved in the future.

This chapter gives a short introduction to BCS70, the background to the video call pilot and a summary of the pilot's main aims and fieldwork design. It provides an overview of fieldwork outcomes, including response rates. Lastly, it gives detail on the sources of information used in the report and the structure of the report chapters.

2.1 The 1970 British Cohort Study

The 1970 British Cohort Study (BCS70) is following the lives of around 17,000 people born in England, Scotland and Wales in a single week of 1970. The main aim of the study is to collect information on health, physical, educational and social development, and economic circumstances among other factors. Because these individuals have been followed over time, it is possible to examine how early experiences can shape later life circumstances.

The 1970 British Cohort Study is run by the Centre for Longitudinal Studies (CLS), a research centre in the Institute of Education, which is part of University College London. It is primarily funded by the Economic and Social Research Council.

The 11th sweep of the survey was due to start in 2020 when cohort members would be 50 years old.

2.2 The pilot stage

2.2.1 Background

A successful face-to-face pilot of BCS70 Age 50 was conducted in February 2020 and preparations then began for mainstage fieldwork to begin in June 2020. Due to the circumstances we found ourselves facing due to the Covid-19 outbreak, these plans had to be put on hold. The situation has raised questions about the approach to data collection for the study.

The situation is continuing to change and develop, but there are challenges facing BCS70 planning. These could include:

- National or local government restrictions that mean that face-to-face fieldwork is not possible in certain areas
- Government restrictions that mean that face-to-face fieldwork is not possible for certain groups of people e.g. those with certain pre-existing medical conditions
- The possibility that, even as/when restrictions are lifted, response rates to face-toface approaches will be suppressed in the short or medium term due to cohort

members being less willing to allow interviewers into their homes (particularly those in more vulnerable groups).

To manage risk, and to protect our cohort members, CLS and NatCen have been considering alternative approaches to data collection. We want to explore whether there are viable cost-effective ways that fieldwork can continue in various possible future scenarios.

As part of this, a pilot study was commissioned to explore the feasibility of conducting BCS70 interviews using video calling technology (Computer Assisted Video Interviewing – CAVI). In this pilot, the approach was to be administered as the only mode available, although it is anticipated that it would run alongside the CAPI mode were it to be rolled out to the main stage.

Video calling allows people to have a conversation remotely but also see each other live on-screen and, depending on the particular tool used, also share screens and documents with each other. There are a wide range of tools on the market. Video calling is possible using a variety of devices including PCs, laptops, tablets and smartphones.

At the outset we set out a 3-stage approach for the pilot:

- Stage 1 was a scoping phase to explore options and design the pilot approach (carried out in June 2020)
- Stage 2 is a small-scale pilot to test and refine this approach (fielded in September 2020). This document is the report of Stage 2
- Stage 3 would be a larger scale field test of the video calling approach and how this fits alongside other fieldwork approaches. A larger scale field test would allow us to quantitatively measure response rates.

2.2.2 Aims of the pilot

The purpose of this small-scale pilot study was to:

- Determine the feasibility of carrying out BCS70 interviews via video call
- Identify whether this is an approach that could be used going forward and any areas of the approach that would need changing for wider-scale rollout.

The pilot was concerned with testing the elements shown in the table below.

Table 2.1 Aims of the pilot	
Response rates and participant experience	• Give an indication of whether a reasonable response rate may be achieved for those groups for whom this approach is used. Are respondents willing and able to try a video call interview?
	• How do participants experience the interview? How does a video call interview compare to other interview modes?
Technology	• What technology is suitable within the context of large-scale fieldwork and what are the challenges that need to be overcome?

Interview content and format	What modifications will be required to the interview and approach, including the length, enabling self-completion sections, and sharing materials?
	Can cognitive assessments be successfully conducted via video call?
Training	Identify areas for focus for interviewer training and wider support.
	• Assess whether the video call training delivered in the pilot is adequate and effective in teaching interviewers everything they need to know about carrying out interviews via video call
Issues for roll-out	• Identify considerations for rolling out a CAVI approach alongside a CAPI approach at scale. This would include considerations of scaling up the interviewer panel, training, monitoring, support and pay.

2.2.3 Key features of the pilot approach

Key features of the pilot approach were:

- Using MS Teams, following initial feasibility testing that demonstrated this platform
 was technically feasible for both NatCen and Kantar to implement and provided the
 required functionality to conduct the envisaged interview. CLS, NatCen and Kantar
 were also satisfied with the data security aspects of the platform
- Cuts made to the interview length (from the version used for the BCS70 pilot in early 2020) to bring it within the original 75-minute target length for CAPI.
- Edits to the Employment and Income modules to reflect changes due to the Covid-19 situation and government furlough schemes
- Additional minor modifications to the CAI instrument to make it suitable for video call interviewing. In particular:
 - Removing the Letter Cancellation cognitive assessment due to requirement that the participant use a physical booklet in which to cross out letters
 - Testing the replacement of the CASI section of the interview with a 10-minute CAWI
 - Testing two different approaches for show cards to see which works better
- 60 BCS70 cohort members were selected for issue for fieldwork, skewed towards those who were more likely to participate in this mode, in particular:
 - The sample for the pilot was selected from those who participated in the previous wave of BCS70 and those for whom we held at least one telephone number and an email address
 - We excluded those living in areas known to have a higher than average proportion of households with no decent internet coverage (based on Ofcom data)

- In order to optimise the chances of securing a good number of video call interviews, half the selected cases had expressed a willingness to be interviewed by video call in a recent online survey of cohort members conducted by CLS
- There was also an even split between those for whom we knew some consent data was needed (whether NHS, HMRC or DWP) and those for whom we do not know whether this was needed. This meant that a higher proportion of interviews contained data linkage consent questions than would normally be the case.
- Within this, using systematic random sampling, we selected the sample to be a spread in terms of gender, urban/rural location and region (GOR)
- In addition to the main sample of 60 cases, a reserve sample of 40 cases was also selected (using the same sampling criteria as the main sample). The intention was to issue the reserve sample if, after 1 week of fieldwork, half or more of the main sample were firm refusals or uncontactable. It was not necessary to use the reserve sample.
- There was no incentive provided to participants in the pilot as BCS70 respondents have never received an incentive
- 6 interviewers (3 from NatCen and 3 from Kantar) were selected on the basis that they were relatively comfortable with technology, although not necessarily with experience of video calling platforms. This was based on the subjective judgment of field managers – and, in some cases, was perhaps based more on technical competence with using interview programmes rather than aptitude to learn to carry out video call interviews. As it happened, all the interviewers we used for the pilot fieldwork were male, but things were not explicitly planned this way
- The interviewers were trained by the research team in video call interviewing practice and the BCS70 study and interviewers were given time to learn and practice
- We developed protocols for conducting the interview via video call (based on initial testing carried out with interviewers during the Stage 1 Scoping).

For the purposes of collecting evidence on the workings of the video call approach, a subset of respondents in this pilot were asked for their consent to record the interview using the MS Teams record facility. The wording used in the question to respondents was as follows:

"Carrying out interviews by video call is a new approach that we are trying out. We are interested in gathering data on how well the new approach works. We are wondering whether you would be happy for this interview to be recorded. If you are willing this would include both the sound and the pictures from the call.

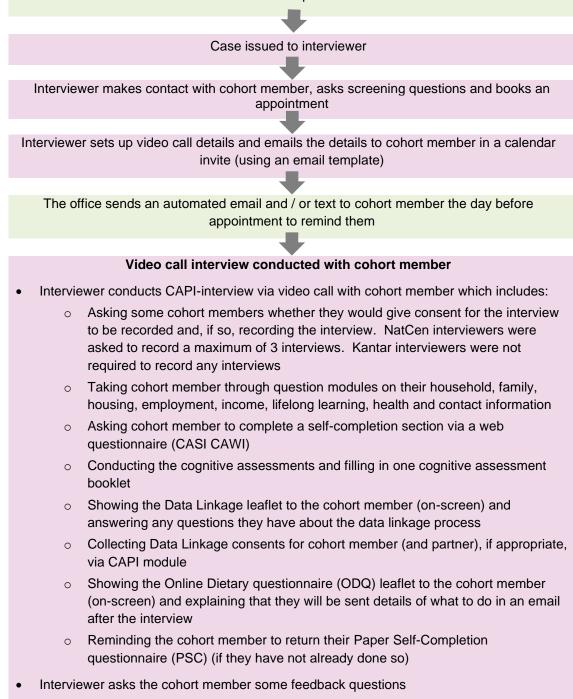
The recording will be stored securely by the research agency and will only be reviewed by researchers working on the project to identify quality issues and any improvements that may be made to the questions, communications or training. The recording will be deleted after 3 months. Agreeing to this recording is entirely voluntary. It would be helpful for the study, but if you are not happy then please say no." NatCen interviewers were asked to record a maximum of 3 interviews. Kantar interviewers were not required to record any interviews because of company policies around storing and transferring video call data.

2.2.4 Fieldwork design

The fieldwork period for the pilot was 4 weeks from Wednesday 9th September – Tuesday 6th October 2020 (although 1 interview was conducted on 7th October).

The diagram below shows the order of events for a fully productive cohort member:

Advance letter with 'BCS70 Age 50 survey – Your guide to taking part' leaflet posted and advance email sent to cohort member from office one week before fieldwork starts (sent 3rd September). Posted letter also includes a Self-Completion questionnaire and a return envelope.



- Interviewer records any feedback about the interview
- Interviewer finalises the case on the eARF and transmits case to office.

2.3 Summary of fieldwork outcomes

A summary of fieldwork outcomes is presented in the table below. Fieldwork outcomes are discussed in more detail in section 3.2 below.

Table 2.2 Final outcomes (high level)							
	Count	%					
Productive interview	44	73%					
No interview	16	27%					
All issued cases	60	100%					

2.4 Sources of information for this report

This report draws on several sources of information, including:

- Response rate data including figures on non-contact and refusal rates
- Interview program data and para-data (e.g. interview timings) from interviews
- Respondent views collected at the end of the CAVI interview and in call-backs with a subset of respondents from member of the Research team
- Interviewer feedback collected at the end of the CAVI interview and also in a detailed feedback form and at the group debrief session
- Ad hoc feedback collected from the project team during fieldwork
- Notes taken while observing recordings made of six of the video interviews.

2.5 Structure of this document

Each chapter of this document looks at an aspect of the pilot approach. For each aspect we outline the approach that was taken, the key findings and suggestions for improvements.

Chapter 13 draws together the findings and recommendations from the individual sections and includes a consideration of possible next steps.

3 Contact and response

This section covers the contact procedures followed during this pilot stage and it provides details of the response from cohort members.

3.1 Contact strategy

3.1.1 Advance communications

Prior to being contacted by interviewers at the start of fieldwork, cohort members were sent an advance letter on 3rd September 2020. The letter invited cohort members to participate in the video call pilot, explaining that they would be contacted in the following weeks. It provided NatCen office contact details in case cohort members had any questions.

With the advance letter, a survey leaflet ('Age 50 Survey – Your guide to taking part') was included providing more detail about BCS70, its history, importance and findings. It also explained what this sweep of the survey would involve, including the interview (with a self-completion element), the Paper Self-Completion questionnaire and the Online Dietary questionnaire. It provided more information on the reasons for adding information about cohort members from administrative records, as well as covering issues of confidentiality and security.

Cohort members were also sent an email at the same time (on 4th September), very similar to the advance letter, and this contained a link to an online copy of the survey leaflet.

These communications seemed to work reasonably well with no respondents commenting on them or making suggestions for improvement. One interviewer commented that he thought the leaflet and letter were well written, but cohort members did not always appear to have fully read them.

3.1.2 Initial contact by interviewers

Interviewers made initial contact with cohort members via telephone. We asked interviewers to attempt to make initial contact with all sample cases in the first week of fieldwork to allow us to make an informed decision about whether to issue the reserve sample in a timely manner.

The contact rules were as follows:

- Phone: In the interviewer instructions and in the training sessions, interviewers were told that their first three contact attempts with a respondent should be by telephone before they tried contacting them in any other way. These phone calls should cover different days and different times of the day including evenings and weekends over a week
- Text message and email: after attempting at least three phone calls, interviewers were told they could also send an email or a text message (using templates

provided). Interviewers were told they should use their NatCen/Kantar email account, never their personal email account

 Voice messages: Some guidance was provided around protocols for leaving voice messages. This included being careful to protect respondent confidentiality and also not assuming that the respondent would call back once a message had been left but continuing to try and contact them.

Before recording the case as non-contact, interviewers were told they needed to make six phone calls to each working number, spread over a three-week period (no more than two in one week and three must be on a weekend/weekday evening). They also needed to try contacting the respondent by email. We asked interviewers to send at least one email, but not more than two emails unless they had received a response.

Tracing participants is typically an important element of longitudinal studies like BCS70. In normal circumstances, BCS70 interviewers would be expected to make multiple telephone calls and face to face calls in order to contact a cohort member. They would also be required to carry out additional tracing activity to attempt to trace any cohort members who were not living at the assigned address. For the BCS70 video call pilot, however, interviewers were restricted to telephone and email communication. The nature of the sample meant that we did not expect many cohort members not to be living at the addresses issued to the interviewers. However, should a cohort member have moved (and not be contactable using the telephone and email details held on file), interviewers were told they did not need to do any tracing activity as this was beyond the scope of this pilot.

On the initial call interviewers tried to ascertain whether the cohort member was willing to participate, ask them some video calling screening questions and schedule a time and date for the video call interview to take place (checking the best email to send the call details to and the best phone number to call them on if there were any problems on the day).

The screening questions were necessary in this pilot given that there was no alternative mode for those unable to participate via CAVI. A different approach would be taken where the CAPI mode was an option. The screening questions in this case were:

- "Have you taken part in a video call in the last 6 months?
- Do you have access to an internet-connected device that you can use for a private video call?
- Which of the following devices do you have that could be used for a video call?

CODE ALL THAT APPLY:

- o Laptop
- PC with microphone and webcam
- o Tablet
- o Smartphone
- None [Exclusive]"

If the respondent did not have access to an internet-connected device that they could use for a private video call then they were not able to take part in this pilot. The question about prior experience of taking part in a video call was asked as an indication of potential to take part in a video call interview, but the answer to this question was not used to screen out any respondents.

If the respondent was not willing to participate, or was unable to participate in a video call interview, then they were "unproductive" for the purposes of this pilot but we will plan to recontact them to participate in the study in future (unless they voluntarily said they do not want to be contacted then).

Feedback on the initial contact by interviewers

Interviewers said they found when making the appointment that the majority of cohort members were happy to take part in a video call with a few mentioning they were interested in seeing this new approach. A few respondents expressed concern about whether the technology would work but went on to successfully complete the interview. Respondents had few questions at this stage about the process, one respondent asked if they needed the MS Teams app but the interviewer explained they could join the call without this via their browser.

Interviewers were asked if in general it was easy or difficult to persuade cohort members to take part. Encouragingly, interviewers reported that most respondents were quite willing to take part and needed little convincing. Many respondents said they used video calls for work, especially since the lockdown, so were happy to use this method. As one interviewer commented:

"Most were quite willing. Several had already used either MS Teams or Zoom for meetings with their work, e.g. working from home during lockdown."

A respondent also commented:

"I think it's (video call interviewing) just as effective. The reality is that this is the new normal, I do this day in day out for work...It's a logical way to do it. Anything that can minimise risk while allowing work to continue."

There were a few respondents who needed a little more persuasion to take part in the video call interview. Usually this was due to concerns over whether they had the right technical skills or equipment to take part. In these cases, interviewers emphasised how important the respondent was to the study and offered reassurance that they would talk them through each step of the process. Where respondents were initially nervous, they felt a great sense of achievement when they did take part. As one interviewer commented:

"In one situation the respondent worried she won't be able to join the call as she did not have good computer skills but under my guidance and explaining to her how important she was, she was able to do the interview. She was really happy she was able to take part."

Another interviewer emphasised the experimental nature of the approach to allay anxiety in their respondent:

"I just said it was something we were trialling to see how it works, which maybe took some of the pressure off in case they couldn't find a way to connect/join."

A few other respondents were not sure if they would have enough time to take part. In these cases, interviewers said they could complete the interview in stages. However, once started the interview was usually completed in one session. There was only one instance of an interview being paused part-way through (and then finished at a later appointment) and this had been pre-arranged.

3.1.3 Reminder strategy

Respondents who agreed to a video call interview were sent the following reminders during fieldwork (unless they opted out):

- The day before their scheduled video call appointment, respondents were sent an email and a text reminder (these reminded them that details of the video call interview could be found in the calendar invite sent to them by the interviewer)
- The day after their video call interview, respondents were sent an email thanking them for taking part, providing a link and login details to the ODQ and the CASI CAWI questionnaire where relevant and also providing an address that respondents could email with any further feedback on the interview or the interviewer
- The day after their video call interview, respondents were also sent an email to
 forward to their partner (if they had indicated they were willing to pass on data
 linkage consent information to their partners). This email included a letter and
 leaflet explaining what is involved in linking data and a link to a CAWI where the
 partner could provide consent online should they be willing to do this. The
 respondent was also sent a text to remind them to forward this email and link to
 their partner
- On ODQ Day 1 and on the ODQ Day 2 the respondent was sent SMS and Email reminders at regular intervals during the day
- One week after the interview respondents were sent an email reminder to return their Paper Self-Completion questionnaire (PSC), complete the CASI CAWI, remind their partner to complete the data linkage consent CAWI and to provide any additional feedback. They were also sent the reminder to remind their partner to complete the data linkage consent CAWI by text
- One week after their video call interview, if the cohort member's partner was eligible for data linkage and they were happy for their partner to be contacted, then an email was sent to the partner with a direct link and login details for the data linkage consent CAWI. This email included a letter and leaflet explaining what is involved in linking data. The partner was also sent a text with the CAWI link
- Two weeks after the interview respondents were sent a final email reminder to return their PSC, complete the CASI CAWI, remind their partner to complete the data linkage consent CAWI and to provide any additional feedback. They were also sent a text reminder to return their PSC, complete the CASI CAWI and remind their partner to complete the data linkage consent CAWI.

Neither respondents nor interviewers made any comments on the reminder strategy. Early on in fieldwork there was a technical glitch that meant that the wrong dates were specified on the initial ODQ emails that were sent for 2 respondents. This error was quickly corrected and replacement emails were sent.

3.2 Response rates

The table below shows the final outcomes for the 60 pilot cases. Some further detail on the unproductive cases is provided in the paragraphs following the table.

Table 3.1 Final outcomes (more detailed)		
Final outcome	Count	%
110: Full interview by target respondent	44	73%
320: Contact made at given address, but not with target respondent (respondent known to be at given address)	2	3%
430: Refusal before interview by target respondent	2	3%
450: Broken appointment, no re-contact	2	3%
520: Away/in hospital throughout field period	1	2%
590: Other reason for no interview	2	3%
615: Respondent cannot be interviewed now - delay until later wave	7	12%
All covered cases	60	100%

The response rate for this pilot was 73% (44/60). There were no instances of technical drop-out during the interview. This can be compared to an overall survey response rate of 75% for the age 42 survey and a response rate of 65% for the early 2020 face-to-face pilot. However it should be noted that the sample for the video call pilot had been selected to only include the most willing cases and this high response rate should not be taken as representative of the sample as a whole.

Of the 16 people who did not complete an interview:

- 3 said they did not have a suitable internet-connected device on which to join a private video call (2 of these are coded as 590 in the table above and 1 as 615). For example, one cohort member was described by an interviewer as '*low income, single bedroom flat*' and had no computer, tablet or adequate phone to take part with
- 2 refused to take part in the study. One person said they had completed an online form to say they no longer wanted to be included in the study and the other said they were too busy to take part
- 1 was coded as Away/In Hospital throughout fieldwork period
- 4 were unable to be contacted to arrange an interview (for 2 of these the interviewer made contact with another household member but not the cohort member and for 2 of these the interviewer made an appointment but the appointment was broken and the interviewer was not able to recontact the cohort member to make another appointment)
- 6 other people were coded as "615" which means "Cannot be interviewed delay to later wave" (in addition to the person without a suitable device mentioned above who was also coded 615). These include:
 - 1 person who was willing to do a video call but was very busy and, at the time they were able to try it (away from their house and via a mobile hotspot), the internet connection was not good enough for them to join the call

- 1 person who was in the process of trying to move house and was too stressed and busy to think about doing an interview
- 4 people who did not explicitly say yes or no to the study but the interviewer did not manage to schedule an appointment with them by the end of fieldwork.

Apart from the people who did not have a suitable device and the person who tried to join but did not have a sufficiently good internet connection, it is not clear that reasons for non-response were specifically related to the video-call approach.

It is possible that, with a longer fieldwork period, it may have been possible to achieve more productive cases.

We note that the response rate for the BCS70 face-to-face pilot that was carried out earlier this year was 66% (116/177). For the pilot carried out earlier this year the composition of the issued sample was more comparable to the composition of the likely issued sample for the main stage based on gender and past participation. It also included an oversampling of cohort members who had not agreed to data linkage in order to test procedures.

The sampling criteria for the video call pilot was different to the pilot earlier this year. The sample for the video call pilot was not selected to be representative of the cohort as a whole and was skewed towards those we expected might be willing to try a video call interview. The sampling criteria is described in section 2.2.3. In particular, the sample for the video call pilot only included people who had participated in the previous wave of BCS70. It also included 30 people who had indicated, in the CLS Wave 1 Covid-19 online survey, that they would be willing to try a video call interview.

Table 3.2 below compares the demographic profile for the full BCS70 cohort, the sampling frame used for the pilot and the sample drawn for the pilot. It also shows the demographic profile of the 44 cases that were productive in the pilot.

Table 3.2 Demographic split for sampling frame, pilot sample and respondents										
	Original sampling frame	Sampling frame after exclusions	Pilot sample	Productive respondents	Response rate for sub-group					
	12176	7187	60	44	73%					
Previously indicated willingness to try video call										
Said willing to try a video call	18%	27%	50%	66%	97%					
Did not say willing to try a video call	15%	6%	18%	11%	45%					
Did not respond to Wave 1 Covid survey	67%	67%	32%	23%	53%					
Knew consent data required from CM										
Consents needed from CM	46%	38%	50%	45%	67%					
No consents needed from CM	54%	62%	50%	55%	80%					
Gender										
Male	49%	48%	47%	45%	71%					
Female	50%	52%	53%	55%	75%					
n/a	1%	0%	0%	0%						
Urban/Rural										
Urban	49%	74%	70%	73%	76%					

Rural	21%	26%	30%	27%	67%
n/a	30%	0%	0%	0%	
Geographic Region					
North East	3%	5%	3%	2%	50%
North West	9%	13%	12%	9%	57%
Yorkshire & The Humber	7%	9%	15%	16%	78%
East Midlands	6%	8%	2%	2%	100%
West Midlands	7%	10%	10%	7%	50%
East of England	8%	11%	8%	11%	100%
London	5%	8%	8%	9%	80%
South East	11%	17%	17%	20%	90%
South West	7%	9%	7%	7%	75%
Wales	4%	4%	7%	9%	100%
Scotland	5%	6%	12%	7%	43%
Northern Ireland	0%	0%	0%	0%	-
Channel Islands	0%	0%	0%	0%	-
Isle of Man	0%	0%	0%	0%	-
n/a	30%	0%	0%	0%	-

As shown in the Table 3.3, 29 of the 44 productive respondents were people who had indicated in the CLS Covid-19 survey that they would be willing to try a video call interview (out of the 30 people in the sample with this characteristic). 5 of the 44 productive respondents were people who had not specifically indicated this and 10 were people who had not taken part in the Covid-19 survey.

The sample sizes for the video call pilot were very small, but Table 3.3 does show the response rates for these 3 different cohort member groups. The sample also shows how the make-up of the video call pilot sample compares with the BCS70 cohort as a whole in this regard.

Table 3.3 Response rates by previous indication of willingness to do a video call interview										
	Productive	%	Unproductive	%	All pilot cases	%	% of pilot sample in this	% of whole BCS70 cohort in this group		
Said willing to try a video call	29	97%	1	3%	30	100%	50%	12.5%		
Did not say willing to try a video call	5	45%	6	55%	11	100%	18%	9.7%		

Did not respond to Wave 1 Covid survey	10	53%	9	47%	19	100%	32%	77.8%
	44		16		60	100%	100%	

The results of this pilot show that video call interviewing is feasible. However, it does not give us a quantitative indication of the response rates we might see across the whole cohort if we were to offer video call interviews as an option alongside face-to-face interviews more broadly. Fuller testing would be needed to gain a better indication of likely response rates in this scenario.

3.3 Suggestions for improvements

As noted above, it is anticipated that the CAVI approach would be used in conjunction with a CAPI approach if rolled out to the main survey. This will make the approach to cohort members very different, perhaps with an emphasis on achieving in-home interviews. However, within the CAVI-only approach there are some considerations for maximising response:

- Additional time for the fieldwork period
- Define what tracing activity we will expect interviewers to carry out for any larger scale rollout. Some tracing activities such as the placement of occupier letter and neighbour letters would need to be adapted to a video-only approach – or could be done "on the ground" as usual if the video approach was run alongside a face-toface approach
- Consider obtaining additional paradata via screening questions to help with interviewer approach / analysis of non-response: ask about previous experience of MS Teams/Zoom etc? Broadband quality? Age of device?
- Brief interviewers on techniques to persuade more nervous respondents to take part. Interviewers can emphasise that all respondent feedback is extremely valuable and that they will guide the respondent through the technology at each stage of the interview, so they have nothing to worry about. Findings from this pilot are encouraging and show that even those who had never used video calling before successfully took part in the interview. This in turn is good evidence in which to persuade other technological-phobic respondents to take part.

4 Interviewing via video call

This section reviews the technicalities of carrying out interviews via MS Teams video call. It also considers respondent engagement and interview duration. At an overall level it looks at what was done, what worked well and not so well and what improvements could be made. The subsequent chapters provide further detail about particular modules and aspects of the interview.

4.1 Setting up and joining the call

4.1.1 Approach

Following the initial call, if the respondent was willing to do a video call interview, the interviewer set up an MS Teams call and emailed the calendar invite to the respondent's email address.

The instructions for interviewers were, as soon as possible after the initial call, to schedule the MS Teams call (a 75-minute call) and email details in a calendar invite to the cohort member, using the text template drafted by the research team. The text template included details of how to join the call (using their browser where possible) and what to do if they needed to reschedule or had trouble joining. The template also included a couple of links to the Microsoft website with more details if needed about how to join a MS Teams call.

If the respondent indicated on the initial call that they were willing to do the interview straightaway, then the interviewer would say that they would set up an MS Teams call to begin in 15 minutes time and would email through the call details as soon as possible.

If there were several days between the initial call and the scheduled interview, a reminder was texted/emailed by the office to the cohort member the day before (as for the BCS70 pilot in early 2020). This reminder told the respondent to refer to their email calendar invite for details. It did not include a link to the video call interview.

Interviewers Training and Instructions covered some key points for interviewers on setting up their workspace and preparing for the video call interview.

Interviewers were instructed to start the MS Teams call 5 minutes ahead of the appointment time. If the cohort member hadn't joined after 5 minutes past the appointment time, the interviewer was instructed to call them on their phone number to check they had remembered and were not having difficulties joining. Ideally the interviewer would persuade them to join as planned and help them to do so. If not then they would agree another time to do the interview, update the call details and send through the updated calendar invite with details of the new time agreed.

4.1.2 Findings

Sending the MS Teams invite worked OK, but some interviewers wondered if it could be automated to reduce the risk of error

• Sending the MS Teams invite was generally OK for interviewers

- Some interviewers had concerns about manually typing in the respondent email address in case a mistake was made. One interviewer suggested it would be best if the sending out of MS Teams invite could be automated
- Kantar interviewers had to go through some extra steps to get the calendar invite onto their interviewer laptops because this had been sent by email and they were not able to access email from their interviewer laptops

Respondents kept their video call appointments

• The vast majority of respondents completed their video call interviews as scheduled. There were very few broken appointments. There were 2 cases where the appointment was not kept and the interviewer was not successful in recontacting the cohort member to reschedule. These 2 cases were given a 450 outcome code

Respondents successfully joined the call using different devices

• Respondents managed OK joining on different devices. 5 respondents did the video call interview on a smartphone, 7 did the interview on a tablet and 22 did the interview using a laptop

More than half the respondents found joining the call a bit difficult – but all except one successfully joined in the end

- 2 respondents did not answer the feedback question on ease of joining the call
- 20 respondents said that joining the call was fine and they had had no problems
- 6 respondents said that joining the call was easy once they got some help (either from a household member or from the interviewer via telephone)
- 16 respondents mentioned they had had issues joining the call. Half of these mentioned issues with the calendar invite link not being easily visible or clickable
- Interviewers provided some feedback on the types of issues that respondents had experienced joining the call. These included:
 - Respondents not spotting the link they had to click on
 - The MS Teams invite not always showing up as expected in respondent calendars (depending on the program/device they used)
 - The link not working when they clicked on it so they had to manually paste it into their browser
 - Respondents struggling to join using a Mac computer
 - o Respondents struggling to join with a Google email account/set up
 - Respondents struggling to join the call where their partner's email address was already set up with MS Teams on the device they were using
 - Some respondents struggling to join via their browser and needed help to download the app
- Interviewers thought that CMs require some basic level of expertise to join the call
- All participants except one managed to join in the end, but some needed a bit of help to do so (either from a household member or from the interviewer over the phone)

• The individual who was unable to join was willing to do a video call but was very busy and, at the time they were able to try it (away from their house and via a mobile hotspot), the internet connection was not good enough for them to join the call.

The calendar invite template should be simplified

Interviewers said that the calendar invite was too long. They suggested it should be shorter and should direct the respondent more clearly to the link to join the call (which appeared right at the bottom of the invite). There were some issues with copying and pasting the template into an MS Teams calendar invite which meant the breaks between paragraphs were not very obvious. In addition, some respondents found it confusing that the invite included other links (with generic instructions of how to join an MS Teams call) as well as the actual link to join the specific interview video call.

One interviewer said:

"i think it [the calendar invite template] is offputtingly over-long. All the respondents really want is an instruction on how to download MS Teams if they haven't already done that, and the link to join the meeting. Very often they could not find the link, or it was not clear".

One interviewer suggested that there should be place in the calendar invite text to include the date and time agreed for the appointment (to make sure these details are really obvious just in case the invite doesn't appear as expected in the respondent calendars).

Another interviewer mentioned that they sometimes made some edits to the first part of the calendar invite text to reflect the conversation they had had with the respondent when agreeing the appointment – particularly if they were rescheduling an existing appointment.

4.1.3 Suggestions for improvement

- To investigate: whether we could avoid the interviewer having to manually type in the respondent email address
- Upload the email template onto Kantar interviewer laptops along with any other electronic materials needed for the interview
- To investigate: would it be possible to automate the sending of the MS Teams invite (so that the respondent email address doesn't need to be typed in manually and so that the interviewer doesn't need to worry about copying and pasting in text from a template)
- Improve the calendar invite template: reduce the length, make it easier to spot the meeting link (perhaps removing the other links), make the paragraph breaks more obvious
- Do some further testing to understand how joining an MS Teams call works on different devices and using different systems and calendars – and incorporate this learning into interviewers training (and possibly develop different versions of the invite template to be used depending on the respondent scenario)
- In the training/interviewer instructions, make interviewers aware that:

- It is helpful to try to call the respondent in advance and check they can see the link and whether they need any help
- MS Teams can't be opened using the Internet Explorer browser
- Some respondents may find they need help from a household member
- Interviewers should be ready early and switch on 10 minutes before
- Interviewers should be prepared to have to re-send the invitation email if they can't find the link to join, and it is not in their calendar
- Provide telephone IT support for interviewers trying to help respondents to join the MS Teams call.

4.2 Technical aspects of the call

4.2.1 Approach

Once the respondent and the interviewer were on the call, and some initial checks had been completed to check they could see and hear each other, the interviewer went through the CAPI interview, much as for a face-to-face interview.

The details of how this worked for different aspects of the interview are provided in the subsequent chapters, however a key difference was that the interviewer showed show cards by sharing windows with the respondent. This meant that the interviewer needed to navigate between the MS Teams program, the interview program and a number of different pdf documents.

4.2.2 Findings

The interview worked by video call

- The various questionnaire modules were conducted successfully and comparably with the in person (CAPI) approach. Sharing stimulus materials via the share screen function worked in all cases, although the efficiency of this process was affected by internet connection speeds and interviewer familiarity with the software
- Some areas for improvement have been identified as a result of the pilot, but overall the approach worked. Findings and feedback on specific sections of the interview and the process of sharing showcards are set out in sections 5 – 11.

Feedback on video call interviews was very positive

- Overall the feedback from respondents and interviewers was positive.
- 36 respondents gave positive feedback about the video call approach and/or said it
 was a good alternative to face-to-face in-person interviewing (in response to a
 question from the interviewer at the end of the interview about how they had found
 doing the interview by video call and how they thought it compared with an inperson interview or doing a telephone or web survey). 3 respondents provided
 comments that weren't particularly positive or negative. Just "OK". 3 respondents
 were less positive. They said it was OK but they would still much prefer a face-toface in-person interview. 2 respondents did not answer this feedback question.
- Feedback from respondents included:

"I think it's just as effective. The reality is that this is the new normal, I do this day in day out for work... It's a logical way to do it. Anything that can minimise risk while allowing work to continue"

"It was easier than I thought. I would struggle to be on the phone for that long. Next best thing to being face to face"

"Similar to in person, better than telephone or web survey because of the interaction"

"Under these Covid circumstances using Teams is brilliant. I also personally find this method more comfortable than face to face interviewing and better than telephone as got to see the answer choices"

"OK Thank you"

"Easier than i though it would be. Personally, I would still prefer face to face. Not really comfortable with all these online type things. Not really something I enjoy."

- Interviewers were positive about the video call approach although acknowledged it may not be possible for everyone. Some said that they still preferred face-toface. One said that *"video call interviewing is the future"*
- Interviewers said that, with guidance from the interviewers, even respondents who are not computer literate have been able to complete the survey.

Using MS Teams worked well

- Overall MS Teams seems fine for now. The pilot has shown that MS Teams is a viable tool for video call interviewing. Many respondents were familiar with video calling and many were familiar with MS Teams due to working with MS Teams before
- Generally, respondents were fine with using Teams. 5 respondents mentioned Zoom might be an easier tool to use, but they were more familiar with Zoom. We did investigate the possibility of offering Zoom as an option during the scoping stage for this pilot, particularly because of Zoom's ease of use (especially around joining calls). However, at that point there were still some concerns around perceptions of data security for Zoom. We made the decision to use MS Teams because it was on the approved list for CLS's ISG, it offered end-to-end encryption and it was an approved tool for both NatCen and Kantar
- We note that not all MS Teams features are available to us for video call interviewing because of NatCen and Kantar security policies (to protect data and to protect the organisations).

The key things mentioned by interviewers in their overall feedback are mentioned below. More details on a number of these things – and particular aspects and sections of the interview – are provided in the subsequent chapters of this report.

Both parties need a good internet connection

Interviewer feedback on this area included:

 Both the cohort member and the interviewer need a decent internet connection. There were only a few mentions of internet connection issues in interview feedback. Only one respondent was unable to join because of connection issues. Sometimes connection issues meant that sharing screens was a bit slow. Sometimes it was helpful for the interviewer/respondent to turn off their video to improve this • The notes from 5 interviews mentioned some issues with sound quality. One interviewer said there was one interview where he lost the sound, so rang the respondent on their mobile and carried on (so the MS Teams call continued on mute alongside the phone call).

The video call windows were not always visible throughout the interview

Interviewer feedback on this area included:

- Respondents were generally happy to have their cameras on
- There was mixed experience of the respondent and the interviewer being able to see each other – this seemed to differ by device and also whether or not the interviewer was sharing a pdf
- Raising the laptop to make the camera angle better makes it difficult for the interviewer to type. A solution would be to provide all interviewers with a separate keyboard
- Noticed that respondents who take part via their smartphone are not aware whether they appear on camera fully.

There were some training challenges but all interviewers were confident by the end

Interviewer feedback on this area included:

- Most interviewers said that they were confident now, but it had taken quite a bit of practice. Several mentioned they felt a bit nervous at the start of fieldwork
- Interviewers would have liked to have technical support available contact with support during interview (particularly when respondents had issues joining the call)
- Interviewers said that video call interviewers need to be proficient and confident (particularly around sharing show cards and navigating) – but they agreed that skills can be learned.

Training is discussed in further detail in section 12.

4.2.3 Suggestions for improvements

- Spend more time testing how the video call interview will work on actual interviewer machines – for both NatCen and Kantar – so that problems can be resolved and training needs identified in advance
- Spend more time in training on how to:
 - Keep the respondent video window visible throughout the interview and also how to explain to the respondent how to recover the interviewer video window if it disappears
 - Share screens (and scrolling down if the window you want is hidden). Also to investigate: Why did some interviewers find that the number of Windows to choose between proliferated during the interview?
- Provide separate keyboards to allow interviewers to type more easily when raising their screens to achieve a better camera angle

• Brief the NatCen IT Helpdesk/Field Team champions so they can better help support interviewers in field.

4.3 Respondent engagement and interview length

4.3.1 Approach

One reason for trialling a video calling approach was because it was felt that a video call interview is more comparable to a face-to-face interview than a telephone interview or web interview. It provides more opportunity to engage the respondent because the interviewer and the respondent can see each other – and the interviewer can also share the screen to show materials to the respondent.

The CAPI interview was planned to last just over 80 minutes, including a 10-minute questionnaire administered by CAWI to replace the element of the CAPI usually delivered via CASI and a number of evaluation questions at the end.

4.3.2 Findings

- The mean average interview length was 93 minutes and the median length was 90 minutes It should be noted that these timings included interviewers chatting at the start of the call to build rapport and also feedback questions at the end of the call. There was considerable variation in interview length, from 52 minutes to 142 minutes. The interview time is the time between the start and end timestamps in the CAPI, rather than the length of the whole MS Team video call
- Part of the variation is due to the fact that some respondents completed the CAWI during the video interview and some did not. Some respondents were asked questions in the data linkage module and others were not. Interviewers mentioned they got a bit quicker as they got more practiced. As with any interview approach, some respondents are more prone to chatting than others. The total time also includes time spent discussing the respondent feedback questions contained in the Contact module
- Table 4.1 below shows the mean and median average times by questionnaire module for the video call pilot. It compares these with the planned length of the video call questionnaire modules (using assumptions about how long these would take if administered face-to-face). The table also shows the mean average times of the questionnaire modules in the BCS70 face-to-face pilot earlier this year, although we note that modifications were made to the interview between the early 2020 pilot version and the video call pilot version
- On average the interview was longer than planned, but there were no substantive complaints from respondents (or interviewers) (although we note that a longer interview may have some cost implications).

Module	Video call pilot (mean)	Video call pilot (median)	Expected F2F timings for version of questionnaire used in video call pilot (after cuts and additions)	Timing difference: CAVI mean minus expected CAPI	Timing difference: CAVI median minus expected CAPI	Early 2020 BCS70 pilot (mean)
1.Household	00:04:42	00:04:06	00:05:41	-00:00:59	-00:01:35	00:05:41
2.Family	00:06:16	00:05:43	00:04:22	00:01:54	00:01:12	00:07:49
3.Housing	00:03:42	00:03:17	00:03:43	-00:00:01	-00:00:26	00:03:20
4.Employment	00:14:09	00:12:47	00:12:40	00:01:29	00:00:07	00:13:19
5.Income	00:10:28	00:09:40	00:08:55	00:01:33	00:00:45	00:12:14
6.Cognitive assessments	00:10:19	00:09:49	00:12:52	-00:02:33	-00:03:03	00:14:34
7.Lifelong learning	00:03:17	00:02:46	00:02:26	00:00:51	00:00:20	00:02:26
8.Health	00:08:09	00:07:39	00:08:17	-00:00:08	-00:00:38	00:12:09
9.CAWI ²	00:09:11	00:08:42	00:10:46	-00:01:35	-00:02:04	00:17:39
10.Data Linkage ³	00:06:48	00:06:17	00:04:02	00:02:48	00:02:17	00:04:02
11.ODQ	00:03:00	00:03:06	00:02:52	00:00:08	00:00:14	00:02:52
12.Contact ⁴	00:12:28	00:10:43	00:05:46			00:05:46
Total CAPI time	93 mins	90 mins	82 mins	3 mins 27 secs	-2 mins 51 secs	110 mins⁵

¹ Colour coding has been used on this table. Green cells represent modules that were shorter than the average and red cells represent modules that were longer than the average. The darker the shade, the greater the differential. Note that different module lengths may have resulted from questionnaire changes, sample differences or differences in mode. ² For the video call pilot, the average times shown for the CAWI is just for the subset of respondents who completed the CAWI during the video call interview. This makes the time more comparable with the BCS70 pilot earlier this year where all respondents completed the CASI as part of the CAPI interview.

³ The average times shown for the Data Linkage sections are across all productive respondents, whether or not they answered any questions in this section. Based just on the respondents who answered questions in this section, averages are: vc pilot (mean) 9 mins 35 secs and early 2020 BCS70 pilot (mean) 5 mins 30 secs.

⁴ The "CAVI minus expected CAPI" columns do not compare the Contact module because, in the video call pilot this module included feedback questions which added considerably to the average time.

⁵ This total is shown for reference, however the average times for the pilot modules shown add up to less than this average time because the pilot in early 2020 included 2 modules that were deleted for the purpose of the video call pilot.

- Interviewers did not report any particular issues with respondent engagement during the interview. Respondents were prepared for the interview to be quite long, and the interview is quite interactive which helps with engagement. Respondents in the pilot may have been more forgiving of length and issues because they knew it was a pilot
- Some interviewers did say that they found it a bit harder to work on keeping the respondent engaged if they were concentrating on doing technical things (like which screen they needed to share next)
- One respondent, whose interview ran on for nearly 2 hours, said that 1.5 hours would have been better – and that the interview lasted longer than the calendar invite. It is best to be upfront with respondents about how long the interview will take
- Interviewers were asked what they thought the maximum length for a video call interview would be. Opinions differed. Some said 2 hours, some said 1.5 hours and one said 1 hour because 1.5 hours seemed a bit long. One interviewer mentioned they thought the length was OK for this study because it isn't every year.

4.3.3 Suggestions for improvements

- Set up the MS Teams meetings for 1 hour 30 rather than 1 hour 15
- Remind interviewers to keep talking and communicating throughout explaining what they are doing to the respondent to fill in any gaps
- Explore whether there are ways of making the show card process a bit quicker
- In next testing phase it will be useful to compare the length of exactly the same interview when conducted face-to-face and by video call to ascertain it there are any differences and if so, what impact they may have.

5 Approach to show cards

This section reviews the techniques used to display show materials during the video interview. It considers what worked well, the difficulties encountered and the recommended improvements.

5.1 Approach

In this pilot we tested 2 different techniques to display show materials during the video interview. We were interested in which approach to sharing information with respondents works best during the interview:

Sharing pdf files

- For much of the interview, the interviewers shared a PDF of the Show Cards with respondents, while they recorded the responses in the interview program. The Interviewer Show Cards pack included 35 cards. These were Powerpoint slides saved as a PDF.
- Interviewers were also asked to share a PDF of leaflets that included the Data Linkage leaflet and the ODQ leaflet⁶. The Interviewer Leaflets pack includes the Data Linkage leaflet ("Adding Other Information About You") (8 pages) and the Online Dietary questionnaire leaflet (4 pages)
- This was indicated in the interview program by an instruction, e.g. "SHOW CARD A1" or "SHOW ONLINE DIETARY QUESTIONNAIRE LEAFLET".

Sharing the interview program screen

- For some parts of the Health, Data Linkage and Contact modules, the interviewers shared the interview program screen directly with respondents
- The interview program prompted the interviewer to share their screen with the instruction 'PLEASE START SHARING YOUR INTERVIEW SCREEN WITH THE PARTICIPANT. The interview program told the interviewer when to stop sharing your screen.

5.2 Findings

The approach we piloted does work, but could be slicker

- One of the reasons for investigating the feasibility of a video call interview rather than an ordinary telephone interview is because video calling provides the opportunity to share information on screen, such as show cards
- We have observed that sharing show cards is one of the most technically challenging parts of the interview for the interviewer to learn and become

⁶ The data linkage leaflet ("Adding other information about you") outlined the data linkage processes for cohort members and/or partners to allow them to give informed consent to this. In the original face to face pilot, interviewers presented it during the interview. In the video conference pilot, interviewers showed it to cohort members using a share screen function. Similarly, the Online Dietary Questionnaire leaflet detailed how this part of the survey was to take place and how to log on. In the face to face pilot, this was presented to the cohort members by the interviewer. In the video conference pilot, this was done via screen sharing.

comfortable with. The approach (whether sharing a pdf or sharing the interview program screen) does work, but several interviewers mentioned they found it a bit fiddly to do and a bit slow

- Several interviewers and respondents made comments wondering whether there might be ways of making the process a bit quicker and smoother
- Sharing the screen with respondents worked well in most cases, but in a few cases where the internet connection was not so good, the process of sharing showcards was a bit slow, or there was a slightly lag when changing from one slide to another.

It requires some practice

Sharing show cards is something that interviewers found they needed to practice quite a bit between the training and fieldwork, but they did get quicker at it the more interviews they carried out. This included sharing their screen, finding the right window to share, navigating to the correct page, checking the respondent could see it/zooming in or out as appropriate, making sure it fits on one screen, and stopping sharing at the right time. Interviewers said that they used their up and down arrows to scroll through pages of the pdf document. They found this easier and quicker than using the thumbnails functionality in Acrobat. Interviewers can't minimise the interview program screen so it is harder than normal to navigate to other programs and windows.

Need to remember to continue to engage respondent

- Interviewers are aware of the need to work on building rapport with respondents and felt that spending time on the technicalities of sharing show cards distracted them from this slightly
- Some interviewers mentioned that they talked to the respondent about what they
 were doing and how they were sharing materials, so that there wasn't a break in
 conversation or long silences. Some interviewers also mentioned that they
 checked the respondent could see the right show cards, in case they had forgotten
 to go to the next page or the pages were slow to transition over the MS Teams call.

A few show cards need reformatting

 Interviewers were generally quite happy with the format of the Showcards pdf. They said they were generally clear and easy to read. One exception was the NART showcard. Some interviewers reported that the bottom line of the card was hidden by the MS Teams task bar. It was also mentioned by interviewers that the Household Income card is very long.

Are all the show cards needed?

- Interviewers queried whether all the show cards are necessary. Some show cards are genuinely needed, but are there cases where, instead of a show cards, the answers could just be read out by the interviewer? Interviewers suggested that reducing the number of show cards would make the interview quicker. Particularly if the answer options are simple, or it is already clear what the answer will be. Examples of show cards queried by interviewers were: Legal Partnership status A1, B2, Type of accommodation C2, D7, D8 and E12.
- Interviewers did acknowledge however that, if the subject is a bit sensitive, a respondent may prefer to read out a letter of the answer option rather than have to

say the actual answer. We also need to be careful of mode effects here, e.g. when presenting attitudinal scales. These factors would need to be considered when thinking about whether a particular show card needs to be shown.

Sharing the interview program screen works

- Interviewers said that they were able to share their interview program screen directly with the respondent, and this was useful particularly in a scenario like the Contact module where we are checking we have the correct information. They mentioned that there were other parts of the Contact module where it might have been useful to share their screen to check information but this was not part of the instructions
- For some interviewers sharing the screen (as in the Health module) seemed a slightly quicker and easier process than sharing the pdf show-cards but only by a few seconds. Some interviewers had been concerned that the interview screen font was a bit small and zooming in the interview program is not possible, but respondents didn't mention this as an issue. The screen shared does not look very modern but again no respondents commented on this.

Where the screen is shared respondents can see exactly what the interviewer sees, including the question wording and any interview instructions

- In some of the recorded interviews observed, the research team suggested that there were times when looking at the interview program screen directly shifted the respondent's focus away from the interviewer to the screen and they were reading the questions and answer codes themselves. Respondents were then more likely to give a quick answer and structure their answer to fit the pre-codes available
- In contrast, when looking at the pdf showcards, they were more likely to explain their decision and to sometimes give answers which fell between two pre-codes. The sharing of pdf showcards therefore required more effort from the interviewers to elicit the right answer, whereas with the sharing of the screen, the onus was more on the respondent which may get tiring for them. In the interviews observed we do not think screen sharing altered the accuracy of information collected but careful consideration should be given to which questions are suitable to be asked in this way and how data compares to that collected face-to-face
- If a mixed-mode approach is used, a consistent approach to show cards should be used for both CAVI and CAPI interviews so that the data is comparable.

There are pros and cons of different show card formats

• There were a number of different views expressed by interviewers on the best way to share show card information – and what is better for respondents. This feedback is summarised in Table 5.1 below.

The Leaflets pdf needs some reformatting

Nearly all interviewers mentioned that it would be helpful to reformat the Leaflets
pdf so that they are easier to share and read over an MS Teams call. This should
include formatting the documents as landscape documents or slides – and
formatting them in a single column – so that it is not necessary to scroll up and
down to allow the respondent to read all the columns of text

- Ideally we should make it easy for respondents to skim read the information in the leaflets, and to read it in more detail if they want to do this
- Interviewers felt that a bit more time than necessary in the interview was spent on respondents trying to read the information in the Leaflets pdf. The fact that the interviewers needed to scroll up and down while the respondent read meant that the interviewers couldn't return to the interview program while the respondent was looking through the leaflets.

Could the text be reduced at all?

 Interviewers did wonder whether all the text in the leaflets and on the Data Linkage module share screens was necessary but they appreciated we have statutory obligations so need to be careful in this area of consents.

Showcards work on smartphones and tablets

• 5 respondents did the video call interview on a smartphone and 7 did the interview on a tablet. Interviewers said that viewing showcards and screens seemed to work fine for these respondents. If anything, it was slightly easier because it is easier to zoom in on a MS Teams window using a touchscreen than when using a laptop.

Interviewers did not use their paper copy of the show cards

 Paper copies of show cards are not required by interviewers for video call interviewing.

	Pros	Cons
Keep as is (mix of sharing pdf and sharing interview program screen)	 It works The interviewer can control which card the respondent is looking at 	 It is one of the hardest things for interviewers to learn - and is a bit clunky/slow at times, particularly if the internet connection isn't great
Share pdf showcards	 The format looks better for the respondent The interviewer can zoom to increase the font size The interviewer can keep sharing the pdf while they return to the interview program The interviewer can say "just let me know the letter number of the option that applies to you" – which may be good for confidentiality/sensitive topics 	 The interviewer has to spend time finding the right pdf page which slows down the interview a bit (although may speed up with practice) There is some risk the interviewer shows the wrong card
Share the interview program screen	 The interviewer doesn't need to spend time finding the right pdf page – potentially making it a bit quicker Works well if there are contact details we want to check with the respondent, and for other quality assurance / reassurance contexts 	 The interviewer has to stop sharing the screen if there is something in the program the respondent shouldn't see (potentially making the process a bit slower) The format is not as visually good for the respondent The interviewer can't zoom to increase the font size It is not so good for sensitive questions since it is obvious to the respondent that the interviewer will know exactly what option their answer refers to Does the way options are displayed on the screen affect how the respondent answers?
Provide respondent with link to online version of showcards	 This would be easy for the interviewer and convenient to administer 	 This would make the task more difficult for the respondent – as they would need to be able to navigate between the MS Teams call and the file of show cards The interviewer would not be able to control which card the respondent is looking at

Send respondents paper version of	This would be easy for the interviewer	 Printing and sending out paper copies of show cards would increase costs and is not particularly environmentally friendly or Covid-secure
showcards		 There is a risk the respondent loses the showcards and/or they do not arrive so they do not have them available for the interview
		 The respondent may look at the number of or content of show cards in advance and be put off participating in the interview
		 Cards would need to be sent after the initial call and before the scheduled interview – would not be able to do the interview "right now"
		 Even if the respondent does have the showcards to hand for the interview, the respondent may be slow at navigating to the correct show card as required
		Interviewer wouldn't be able to control which card the respondent looks at

5.3 Suggestions for improvements

- Review set of pdf showcards to check that they are all needed. It would be good to cut down the number of showcards if possible
- Reformat NART slide so that the words at the bottom aren't hidden when showing to respondents
- Review all the other pdf show cards to check that they appear OK during a video call interview
- Review the balance of cards we have on pdf and screens that are shared directly is there anything it would make sense to change?
- Review the ordering of questions that require showcards. Is there anything we could do to try and group together questions that require show cards? (where it makes sense)
- Reformat the Leaflets pdf pages to be landscape with just one column, to avoid having to scroll up and down when sharing with respondents
- Provide interviewers with additional training on sharing show cards in particular how to scroll down to see all the options for sharing Windows; how to address the issue that some interviewers find that the list of open windows to share got longer and longer as the interview progressed and how to continue to engage the respondent as they are looking for the right show card
- Encourage interviewers to practice so they get slicker at sharing pdf showcards (This may also support the case for using dedicated/specialist interviewers for CAVI interviewing)
- Consider whether we want to explore any alternative approaches to sharing show cards (e.g. providing an electronic or paper version to respondents before the interview)
- Revisit the possibility of using the MS Teams "give control" functionality so that respondents could look through the showcards and Leaflet pdfs at their own pace (although for the pilot, this option was not available with respondents under the current NatCen and Kantar IT security policies).

6 CASI via CAWI

This section includes feedback and observations on the process and materials for administering the CASI questionnaire via a CAWI and identifies some suggested improvements.

6.1 Approach

The BCS70 survey involves a self-completion module. In this pilot this module was administered via an online questionnaire (CAWI), rather than a CASI module in which cohort members would enter their answers directly into the interviewer laptop.

Before we developed the CASI CAWI, we explored the possibility of using the "give control" feature of MS Teams to allow the respondent to fill in the CASI questions directly in the interview program (while the interviewer turned away from the camera), but the "give control" feature is not currently available to use with respondents under NatCen and Kantar IT security policies.

In this pilot the CAWI was short, just 10 minutes, to test whether the approach could work. As is standard with many web surveys, the CAWI was set up with a 10-minute "lock out" time to prevent the survey timing out if the respondent steps away from their computer and to prevent multiple instances of the survey being live at the same time

As part of their interview materials, interviewers were provided with a "Link to CAWI" pdf file for each respondent allocated to them. The pdf file was identified by the respondent serial number and contained the respondent-specific CAWI link. The link for each respondent was provided in a separate file to decrease the chance that the interviewers sent the wrong link to the wrong respondent by mistake. Kantar interviewers were set up so that all 10 Link-to-CAWI pdfs opened on their machine when they launched the interview/MS Teams programs.

During the CAVI interview the interviewer invited the respondent to complete the short web questionnaire (CAWI) while the interviewer waited on the video call. If the respondent was willing the interviewer sent the CAWI link to the respondent via the MS Teams chat function by copying and pasting the web link from the relevant pdf document (choosing the link corresponding to the cohort member's serial number and being careful not to click on the link themselves). The interviewer instructions suggested that, ideally, the interviewer would copy and paste the appropriate link into the chat window before starting the interview so that it was ready to send to the respondent when needed.

At the appropriate point in the interview, the respondent was invited to click on the link and complete the CAWI in their browser, while the interviewer remained on the video call.

If the respondent was not willing or not able to complete the CAWI during the interview then they were sent their link to the CAWI in an email sent by the office the morning after their interview.

6.2 Findings

Respondents said they were happy to complete the CAWI during the video call interview

• Interviewers reported that all respondents were happy to try doing the CAWI during the video call interview. Nobody initially said they would prefer to do it later.

Sending the link via the chat window worked well

- Sending the link via the chat window worked well. Interviewers said it was easy to copy and paste the link and did not report any issues with sending the links to respondents. From feedback it sounded like most interviewers had copied and pasted the link during the interviewer rather than in advance as suggested in the instructions. One interviewer said they found it more convenient this way and they could explain to the respondent what they were doing
- There were some differences in experience between NatCen respondents and Kantar respondents. These experiences are summarised below, and the completion data for the CASI CAWI split by agency is shown in Table 6.1 that follows.

NatCen respondents: Successfully completed the CAWI

- NatCen interviewers reported that the respondents found the CAWI easy to access, even ones using tablets and phones, and that they completed the CAWI without problems
- The only problem was with one respondent who accidentally closed their browser window after launching the CAWI and so locked themselves out for ten minutes. This respondent did not complete the CAWI – although might have done if the interviewer had prompted them later to do so
- 1 respondent did not see the CAWI section of the interview because the interviewer inadvertently clicked "No" at the beginning of the CAPI when asked whether they were doing the interview via video call. This had the effect of routing the respondent around certain parts of the CAPI interview. The CAWI was one of these parts.

Kantar respondents: Many were initially locked out and so completed the CAWI later

- Nearly all Kantar respondents experienced an issue when they initially clicked on the CAWI link. They got an error message saying that the survey was already active and they should try again in 10 minutes
- We became aware of this issue during fieldwork but it took some investigation to understand what was causing it. We have now ascertained that the issue arose because of the pdf reader settings on the Kantar interviewer laptops. The settings (which are to do with checking whether external sources are trusted sources) effectively activated the link when the interviewer highlighted the link in the pdf document to copy it, even though they were careful not to actually click on it. We have determined that these pdf reader settings can be changed which would avoid this issue arising in future if the same approach was used for providing the links to interviewers

- No respondents said they didn't want to do the CAWI during the video call. It is just when they tried it, the link didn't work. Many of these agreed they would complete it later. Some those who had issues with the link were coded as "Unable to access CASI during interview" and some were coded as "Willing to do CASI after interview" – but no-one actually initially said they would prefer to complete the CASI after the video call. For this reason, in the table below "Unable to access CASI during interview" and "Willing to do CASI after interview" are combined together
- 12 of the 18 respondents who encountered this issue went on to successfully complete the CAWI, many of them later on in the video call interview or right at the end of the video call interview. This was due to the interviewers encouraging them to try the link again even though this wasn't explicitly part of the interviewer instructions
- 1 respondent, using a smartphone, struggled to find their chat window to see the link that had been sent and so did not complete the CAWI during the video call. This respondent did go on to successfully complete the CAWI following the video call (when the link was emailed to them by the office)
- 2 Kantar respondents did successfully access the CAWI link at the appropriate point in the CAPI. These were cases where the interviewer had copied and pasted the link at an earlier point in the interview (ie. More than 10 minutes before the respondent tried clicking on it). 1 of these respondents returned a completed interview and 1 did not.

Overall CAWI response rate was 81% but would have been higher without the "locked out" error

- In total, 35 respondents (81%) completed the CAWI. This included 22 who completed it at the appointed place in the CAPI and 13 who completed it later (either later in the video call interview or following the video call interview)
- We would expect that the respondent rate would have been significantly higher than this if Kantar respondents had not received the initial "locked out" error. And this error will be avoided if the pdf reader settings on the Kantar interviewer laptops are changed and/or we modify the approach to providing the CAWI links to the interviewer

Table 6.1 Response to CASI CAWI, by Agency			
	NatCen	Kantar	Total
Full productive	21	14	35
Accessed CASI during interview (via link) - fully productive	21	1	22
Unable to access CASI during interview/Willing to do the CASI after interview - fully productive ⁷		13	13
Not completed	2	7	9
Accessed CASI during interview (via link) - not completed		1	1
Unable to access CASI during interview/Willing to do the CASI after interview - not completed ⁷	1	6	7

• The table below provides a breakdown of the CAWI response by agency.

⁷ In the table the codings of "Willing to do the CASI after interview" and "Unable to access CASI during interview" are combined together because all those who were coded as "Willing to do the CASI after interview" were in fact willing to

Did not see this part of the interview	1		1
Total	23	21	44

Most respondents easily returned to the MS Teams call window after the CAWI

 One interviewer mentioned that 1 respondent needed a bit of help from someone in their household to return to the MS Teams call window after completing the CAWI. This interviewer said that they couldn't help because they didn't know how the screen looked for the respondent. No other interviewers mentioned issues with the respondents returning to the MS Teams call window after completing the CAWI.

Respondents made some observations on the content of the CAWI

- Once in the CAWI, no respondents completing the CAWI reported any technical problems to the interviewers. A couple of interviewers mentioned that a few respondents made some comments on the content of the CAWI questions
- One respondent told the interviewer the questions were similar to questions they had answered before. One said they found the questions a bit awkward. One said that the answer options for the mental health were too black and white and needed to be more nuanced
- Since some respondents made some comments on the content of the CAWI, some interviewers expressed interest in having the detail of the CAWI questions as part of their interviewer materials. Some interviewers, however, said that they felt they questions in the CASI are private and interviewers don't need to know the details of what the respondent is being asked.

The format of how the links were provided to interviewers worked well for this pilot

- Interviewers said that the format of the Link to CAWI pdfs worked well for this pilot. They reported that having a different file for each respondent was good because it reduced the chance of sending the wrong link to the wrong person
- However, both interviewers and field managers thought that the format of a separate Link to CAWI file for each respondent would get tricky with larger interviewer caseloads and we may want to make some changes to this for wider scale rollout
- In terms of what alternative formats might work, some interviewers thought that having the information in a grid could be OK as long as there were no more than, say, 10 links per page and the serial numbers were in a logical/sequential order to reduce the risk of the interview selecting the wrong link
- Another interviewer suggested it would be much easier if the link was the same for all interviews (with a respondent specific login code that the interviewer could read it). One interviewer suggested it would be good if there was the option of the interviewer sending the link to the respondent by email if the respondent has difficulty finding their chat window
- Wider suggestions from the project team included keeping the links on separate pages but providing them in a single file or providing the link on the CAPI screen in a form that the interviewer could copy and paste.

6.3 Suggestions for improvements

- Review the format in which the respondent CASI CAWI links are provided to interviewers, to make it as easy as possible to find and send the correct link (for example, in the CAPI, provide the unique link in a format that can be copied and pasted by the interviewer and also display a simplified unique URL such that the unique login is identifiable (so that, if necessary, the interviewer can tell them to go to the generic URL, then provide the login code) (so display twice on screen)
- (To consider) Reduce the lock out time e.g. to 1 minute or 5 minutes to minimise impact of problem if it does occur (but this means the survey will time out if the respondent stops partway through) [there are pros and cons of reducing the lock out time to less than 10 minutes]
- Explain to interviewers (in the interviewer training and via instructions in the CAPI script) what to do if the respondent is locked out of the CAWI e.g. try again after the next couple of questions, if still locked out then arrange for the CAWI link to be emailed to them following the interview
- Add interviewer instructions on "How to explain to respondents how to find their chat window" and "How to explain to respondents how to return to the MS Teams call window after the CAWI". Succinct instructions on this could also be added to the CAPI script
- Consider including some details of the CAWI content in interviewer instructions (although we note that interviewers were also provided with test links for the CAWI so they can see how the survey looks for themselves)
- Question to resolve: Need to decide what is the longer-term intention for the CAWI

 both in terms of additional questions and also and how this fits with the Paper Self
 Completion questionnaire. The way forward will need to be agreed both in light of
 the response rates and future re-start plans
- NB. We note that if we could overcome the organisational IT restrictions that meant we could hand over control to the respondent during the video call interview then wouldn't need a separate CAWI – the respondent could provide their responses directly in the interview programme as in an in-person interview.

7 Cognitive assessments

This section considers how well the cognitive assessments worked as part of the video call interview.

The cognitive assessments measure a variety of different aspects of the respondent's cognitive function. For this video call pilot, we used a subset of the cognitive assessments planned for the mainstage fieldwork. The order of the tests included was: word-list recall, animal naming, delayed word-list recall and the National Adult Reading Team (NART). The Serial 7 and Counting Backwards assessments were excluded to reduce the overall length of the CAPI interview. The Letter Cancellation test was excluded because it was thought it would not work by video call.

The cognitive assessments were conducted using a "Cognitive Module – Interviewer Recording Booklet", in conjunction with the CAPI. The interviewers were encouraged to check that the video call sound was working well before starting the assessments – and, if there were sound issues or lags due to the internet connection during the assessments, to record these in the CAPI.

The cognitive assessments were successfully incorporated as part of the video call interview. Interviewers were very complementary about how well this section worked, with a few interviewers commenting that this was the best part of the interview. One commented:

"I thought the Cognitive Assessment module was just as good as face-to-face."

Assessments were especially chosen because they were thought to be suitable for video call interviews. One possible limitation of video calling would be that not all tests may be suitable for delivery in this format.

7.1 Word Recall (immediate and delayed)

7.1.1 Approach

The Word Recall test is administered using the CAPI. The cohort member is read a list of 10 words, and they are then asked to recall the words immediately, and then again later on in this section of the interview (delayed word list recall). There are 4 different lists. The CAPI determines which list the respondent hears.

Ideally the list of words should be read by a computer voice. This helps ensure consistency in how the test is administered. In MS Teams it is possible to share audio during a call. This would allow the respondent to hear the list of words being read by the computer. However, it is only possible to share audio at the same time as sharing the screen that the sound file (.wav file) is embedded in. In the current version of the CAPI interview program, the screen with the .wav file embedded in it also has the words listed on it. This meant we could not allow the respondent to hear the computer voice read the list of words without also showing them the list of words written on screen. This issue was only spotted just before fieldwork when there was not time to edit the CAPI programme to address this issue. For this pilot, therefore, the interviewers read out of the list of words to the respondents.

The letter cancellation task (which was excluded from this video call pilot) ordinarily comes after the Animal Naming task, so between the initial Word Recall test and the

Delayed Recall Test. This means that the gap between Word Recall and Delayed Word Recall was shorter in this pilot than it is typically.

7.1.2 Findings

Overall interviewers felt this part of the assessment worked very well over video call.

Because of the technical issue that meant that respondents could not hear the computer read the words to be recalled over Microsoft teams, in all cases interviewers read out the words to be recalled to the respondents themselves.

Interviewers reported that this worked well, the sound quality was good, and respondents could hear clearly. As one interviewer commented:

"With me reading them out it was fine, sound quality good."

Only one problem was reported where a respondent misheard an interviewer's pronunciation of the word "gold" as "cold," and in this instance the interviewer did not give the respondent a mark for this word recall.

Another interviewer commented that the problem of mishearing pronunciation also happens in face-to-face settings when the computer audio is played. He commented that often when the computer's voice reads "corner" respondents hear "korma."

The table below shows the average number of words recalled by respondents. The number of words recalled in the immediate and delayed tests in the video call pilot were broadly in line with other rounds of the study. In the video call interview there was a shorter time lapse between the immediate and delayed recall word test than at previous rounds as the Letter Cancellation task was removed. If video call interviews were rolled out more widely CLS may want to have a longer time lapse between the recall exercises to replicate what was done before and to ensure data is as comparable as possible.

Table 7.1 Immediate	e and delayed word r	ecall scores	
	BCS70 Video Call Pilot October 2020	BCS70 Pilot January 2020	BCS70 Age 46 Study 2018
	N	Ν	N
Average number of words recalled (immediately)	6.7	6.8	6.6
Average number of words recalled (delayed).	6.1	5.8	5.5
Total	44	116	8581 / 8498
Base: all taking pa	art in cognitive asse	ssment	I

One interviewer noted that it could be possible for respondents to write down the words in the word recall test as you are not with them in person. They said "One respondent joked that he would not cheat by writing the words down (!) in the word recall, but in theory this is something they could do as you have to read from the list and can't see them." However, no interviewers commented that they thought this had happened during their interviews.

7.1.3 Suggestions for improvement

- Separate out CAPI screens so that the .wav file can be played to respondents without them being shown the list of words on the screen. We suggest that the test results collected will be much more reliable if the test is conducted in the same way for face-to-face and video call respondents and with the same voice
- However, we would still recommend briefing interviewers to read out the words clearly themselves in any cases where the respondent could not hear the sound recording, and to note down where this was the case. We would also give interviewers guidance on how to mark words which are recalled incorrectly due to the mishearing pronunciation. These briefing points would apply to both face-toface and video call interviews
- For mainstage fieldwork CLS may want to consider adding in another cognitive test to replicate the time between the immediate and delayed recall word tests to make sure results are comparable with previous rounds of the data
- To minimise the risk of respondents writing down words in the recall test, interviewers could try to make sure they can see the respondent at this point on their screen. However, this could be potentially difficult as they are playing a sound recording at the same time.

7.2 Animal Naming

7.2.1 Approach

This is a test of how quickly participants can think of words from a particular category, in this case naming as many different animals as possible within one minute. The Cognitive booklet provided the rules for which animals should or should not be counted. The interviewer counted how many different animals the respondents named and recorded this in the CAPI.

7.2.2 Findings

Interviewers found that this exercise worked well over video call. Respondents could recall 24.5 animals on average in the 1 minute allowed which was in line with results collected at previous waves of the study.

	BCS70 Video Call Pilot October 2020	BCS70 Pilot January 2020	BCS70 Age 46 Study 2018
	N	N	Ν
Number of animals named	24.5	22.6	23.6
Total	44	116	8498

In general interviewers found it relatively straightforward to record the number of animals mentioned by respondents during this test. For most interviews the sound quality was good, and both the interviewer and participant could hear each other without delays. However, one interviewer commented that they found it a bit difficult to count accurately if a person speaks fast and *"if the sound is just a little bit off."* They found over video call that it was a bit harder to hear and write down all the animals than it would be in person. Faster recording of the names given may therefore be needed during the video call and techniques to do this can continue to be suggested during the interviewer briefing.

A few interviewers commented that respondents could not hear the timer say stop when the minute had finished so in these cases the interviewer also said stop. One interviewer suggested that maybe a count-down timer screen would help.

7.2.3 Suggestions for improvements

• Due to a possible slight delay between the respondent and interviewer sound on a video call, the interviewer may need to record the animal names slightly faster than in a CAPI interview. In the briefing we would continue to advise interviewers on the fastest way to record animal names to help them if there are any sound issues

• We will also see if the timer voice can be made audible to respondents and continue to emphasise that interviewers need to tell respondents when the minute has elapsed if the respondent has not heard it.

7.3 National Adult Reading Test

7.3.1 Approach

The National Adult Reading Test (NART) requires the cohort member to read out loud 25 words, which vary in terms of their spelling and phonetic pronunciation. The NART tests an individual's vocabulary rather than their ability to apply regular pronunciation rules.

If the cohort member was willing to take the test, they were asked to read aloud the 25 words on a showcard. As for other showcards in the video call pilot, the interviewer showed this by sharing the appropriate page of the Showcard pdf document. The words were formatted in 3 columns to fit on the page. The respondents were instructed to read down the columns, from left to right.

The interviewer returned to the CAPI program while continuing to share the pdf page with the respondent. After the respondent read each word the interviewer recorded in the CAPI whether they used the correct or incorrect pronunciation, and then said 'Next' and moved on to the next CAPI screen.

7.3.2 Findings

Overall this test worked well over video call. On average 16.4 words were pronounced correctly out of 25 in the video call pilot which was broadly in line with the results of the January pilot (see Table 7.3).

	BCS70 Video Call Pilot October 2020	BCS70 Pilot January 2020
	N	Ν
Average number of NART words pronounced correctly.	16.4	15.9
Total	44	116

One interviewer commented that they gave respondent clear instructions about the order words needed to be read out in:

"Worked well, but I always added instruction on navigating columns on pdf, to ensure they started at top of Left Hand list first working down, then to top of middle column

down to bottom, then top of Right Hand and down, to ensure they didn't read across the page of pdf."

Some interviewers reported some difficulty in the respondents being able to read all of the last row of words on the test because the respondent's MS Teams control bar was in the way:

- Interviewers said they were not able to scroll up and down the page so that respondents could view the last line on their screens. However, one interviewer said they fixed this problem by changing his settings for the next respondent
- Another interviewer said they over-came this problem by making the document smaller on their screen so the respondent could view the last line of words
- There were two instances where the respondent could not see the two words on the bottom line and the interviewer was not able to fix it during the interview

One interviewer reported a slight problem with the breaking up of sound in the interview which made it harder to hear the respondent's pronunciation at this test.

7.3.3 Suggestions for improvements

- In the CAPI script instructions can be added before this task to ensure the respondent reads out the words in the same order as the interviewer is marking them
- The showcard for the pronunciation test needs to be reformatted so it is less likely that the words at the bottom of the showcard will interfere with the team's control bar
- In the training we can brief the interviewers on how to resize or scroll in the document to enable respondents to see this clearly, depending upon what is possible on the interviewer's laptop
- We can train the interviewers to explain to respondents how they can close their tool bars
- In cases where the sound quality is too poor for the interviewer to carry out this test
 a solution might be for the interviewer to call the respondent using their mobile
 phones. This approach was used successfully in the pilot to conduct one interview
 where there was poor sound quality (and the MS Teams call continued on mute
 alongside the phone call).

8 Data Linkage

This section draws together information and feedback on how well the process and materials for administering the data linkage module worked via video call, both for cohort members and their partners.

8.1 Approach

The interview asked cohort members for their consent to add some of the information held in administrative Health (NHS) and Economic (DWP and HMRC) records to the information BCS70 has collected over the years. Cohort members were only asked for this consent if they had not already provided it in a previous wave of the study. The interview also asked cohort members if their partner would be willing to come on the video call and answer some questions about providing consent for their data to be added. The questions were only asked about the partner if the partner had not already provided consent in a previous wave of the study (or if the cohort member had a new partner since the previous wave of the study).

The interview told the interviewer if they did not need to ask for any consents at all. If they did need to ask for consents, the CAPI told them if they needed to ask the cohort member and/or their partner for consent and which consents they needed to ask for.

The interviewer showed the Data Linkage leaflet ("Adding Other Information About You") to the individual on screen by sharing the appropriate pages of the Leaflets pdf. Interviewers were instructed to allow the individual time to read the information on the leaflet at their own pace and then answer any questions they might have.

Once the individual had read the leaflet and asked any questions they had, there was a separate CAPI question for each of the three consents (NHS, DWP, HMRC) – although only the ones the cohort member and their partner were eligible for came up.

For each consent question, the interviewer shared their interview screen so that the individual could read through the relevant consent text themselves. This was done to reduce the amount of text the interviewer had to read out (and was a change from the pilot earlier this year).

This was one of the modules in the interview where we tested how well it worked to show information to the respondent by sharing the interview program screen directly (we also tested this in the Contact Information module).

The interviewer recorded whether or not the cohort member (or their partner) gave permission for each linkage in the CAPI (at the relevant consent question).

If the partner was not available or not willing to join the video call (but consent information was required for them), the interview asked the cohort member for permission to email them a letter, a leaflet and a link to a Data Linkage CAWI for them to pass on to their partner. This gave partners the opportunity to provide their consent following the video call interview with the cohort member.

If consent was given for this then, the day after their video call interview, cohort members were sent an email to forward to their partner. This email included a letter and leaflet explaining what is involved in linking data – and also a link to a CAWI where their partner could provide consent online should they be willing to do this. The respondent was also sent a text to remind them to forward this email to their partner.

One week after their video call interview, if the cohort member's partner was eligible for data linkage and they were happy for their partner to be contacted, then an email was sent to the partner with a direct link and login details for the data linkage consent CAWI. This email included a letter and leaflet explaining what is involved in linking data. The partner was also sent a text with the CAWI link.

Two weeks after the interview respondents were sent a final email reminder to remind their partner to complete the data linkage consent CAWI. They were also sent this reminder by text.

Cohort members who have provided consent to add their data in this pilot – or where their partners have provided consent to add their data in this pilot – will be sent a paper copy of the Data Linkage "Adding Other Information About You" leaflet as part of their Thank You Mailing, together with confirmation of the consents they have provided.

8.2 Findings

8.2.1 Cohort member consent

Consent rates for data linkage amongst the cohort members in the video pilot compared favourably with those achieved in the BCS70 Survey Pilot in January 2020 (table 8.1). The data for NCDS spring 2020 is also shown but we note that the approach to collecting data linkage consent information in NCDS is quite different to BCS70.

- 92% of cohort members agreed in the video call pilot to have their survey data linked to their health records compared to 64% of those taking part in the previous BCS70 pilot and NCDS Spring 2020
- Approximately two thirds agreed to have their survey data linked to DWP and HMRC (67% and 61% respectively) compared with approximately half of those taking part in the previous BCS70 pilot (53% and 52% respectively) and NCDS Spring 2020 (49% for both).

The base sizes for the video call pilot are small and not representative of the BCS70 cohort as a whole so these findings are not statistically significant. However, at this stage the initial findings are encouraging and give no indication that consent rates for data linkage among cohort members will be lower for video call than for face-to-face interviews.

			Video II Pilot er 2020		BCS70 Pilot January 2020		NCDS Spring 2020	
Type of Consent		N	%	N	%	N	%	
Health	Consent given	12	92	23	64	229	64	
	Consent refused	1	8	13	36	94	26	
	Form not received from cohort member	-	-	-	-	3	Ĩ	
	Total: All cohort members asked for health consent	13	100	36	100	358	100	
DWP	Consent given	10	67	23	53	226	49	
	Consent refused	5	33	20	47	192	42	
	Form not received from cohort member	-	-	-	-	4		
	Total: All cohort members asked for DWP consent	15	100	43	100	459	100	
HMRC	Consent given	11	61	23	52	224	49	
	Consent refused	7	39	21	48	192	42	
	Form not received from cohort member	-	-	-	-	4		
	Total: All cohort members asked for HMRC consent	18	100	44	100	459	100	

8.2.2 Partner consent

Table 8.2 shows partner consent rates for data linkage – both during the CAVI or, afterwards, via the Data Linkage Partner CAWI. As for cohort member consent rates, consent rates for data linkage amongst partners of cohort members in the video pilot are also encouraging and do not seem to be lower for video call than face-to-face interviews. As before these findings must be treated with caution as they are based on a very low sample size and the sample is not representative of BCS70 cohort members as a whole. As for cohort members, the data for NCDS spring 2020 is shown as well as for the BCS70 January 2020 pilot, but we note that the approach to collecting data linkage consent information in NCDS is quite different to BCS70.

	BCS70 V	/ideo Call Pilot	BCS70 Pilot Jan 2020		NCDS Spring 2020	
	N	%	N	%	N	%
HEALTH			1			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Consent received (BCS70: CAWI or CAPI, NCDS: Paper)	8	31	11	17	206	34
Consent received CAPI	3	12	8	13	-	-
Consent received CAWI	5	19	3	5	-	-
Partner does not give consent	4	15	7	11	137	23
Refusal received CAPI	3	12	7	11	137	23
Refusal received CAWI	1	4	-	-	-	-
Cohort member did not give permission for contact with partner	4	15	23	37	126	21
Cohort Member agreed to pass on the letter (No data linkage received yet)	10	38	22	35	135	22
Total: All partners who have not previously consented to Health data linkage	26	100	63	100	604	100
DWP			1			
Consent received (BCS70: CAWI or CAPI, NCDS: Paper)	7	27	10	16	180	28
Consent received CAPI	3	12	7	11	-	-
Consent received CAWI	4	15	3	5	-	-
Partner does not give consent	5	19	8	13	169	26
Refusal received CAPI	3	12	8	13	169	26
Refusal received CAWI	2	8	-	-	-	-
Cohort member does not give permission for contact with partner	4	15	23	37	156	24
Cohort Member agrees to pass on the letter (No data linkage received yet).	10	38	22	35	144	22
Total: All partners who have not previously consented to DWP data linkage	26	100	63	100	651	100
HMRC						
Consent received (BCS70: CAWI or CAPI, NCDS: Paper)	7	27	11	17	181	28
Consent received CAPI	3	12	8	13	-	-
Consent received CAWI	4	15	3	5	-	-
Partner does not give consent	5	19	7	11	169	26
Refusal received CAPI	3	12	7	11	169	26
Refusal received CAWI	2	8	-	-	-	-
Cohort member does not give permission for contact with partner	4	15	23	37	156	24
Cohort Member agrees to pass on the letter (No data linkage received yet).	10	38	22	35	144	22
Total: All partners who have not previously consented to HMRC data linkage	26	100	63	100	651	100

8.2.3 Feedback from interviewers

There is quite a lot to read - it would be good if this could be speeded up a bit

Interviewers were asked how well the process of explaining data linkage to respondents worked via video call. Interviewers commented that this section worked adequately but there was quite a lot for them to read out which made it feel slow and laborious. As one said:

"Didn't think this was the best part of the interview. There is a lot to read out, and much of it is in corporate jargon."

One interviewer commented that if the respondents mention at the start of the data linkage section that they do not want to give consent, it would be helpful if there was a way to shorten or skip some of the questions. Currently there are sections of text that are read out even if the respondent already knows they do not want to give consent.

In the pilot debrief those interviewers who had worked on NCDS or BCS70 before were asked if the ability to share their screen in the video call pilot, so respondents could read the consent information and questions for themselves, saved time. One interviewer said this was very helpful to save time.

"Absolutely, yes I think it makes all the difference when people can read the screen because ... you are not bound by, you know they can skip read, whereas if you are reading it all out there is no short cut at all you have just got to read it all out....."

Going forwards it will be worth exploring if the interview screen could be shared more with the respondent to save time in this section, however, we would still need some parts of the section to be read out to make sure the respondent receives the most salient information.

The Data Linkage leaflet took a while to read and needs reformatting

Another interviewer mentioned that sharing the Data Linkage explanatory leaflet on screen slowed the interview down as, via video call, the respondent took longer to read this than they might have done face-to-face. He said that in face-to-face interviews many respondents tended to look at the leaflet while he continued to read out the script.

"A bit slower than CAPI, as unable to allow respondents to scan read leaflet while reading script aloud..."

Although this may slow down the interview a bit, we note that the advantage is that the cohort member has time to properly read or listen to all the necessary information, rather than multi-tasking, and so will be better informed to make the correct decision for themselves.

Interviewers thought that the format of the Data Linkage leaflet could be improved to make it more suitable to be shared on screen. The leaflet is in portrait format with text in two columns, so interviewers had to scroll up and down each page twice whilst respondents read the leaflet. As one interviewer commented; -

"The consent leaflet should not have columns as it is difficult for the respondent to read it. Going up and down all the time."

They suggested that if the text was not in columns and/or the leaflet was landscape with one page fitting per screen then this would make it easier to display the leaflet and in turn be a better experience for the respondent.

Some respondents initially misunderstood how the partner consent would work

A few interviewers reported that some cohort members initially thought they were going to be asked to give permission for their partner's data to be linked to Government records. This made some respondents uncomfortable at the start of this section and is not an ideal scenario when permission is being sought also to link their data. Interviewers were quick to re-assure respondents that this was not the case, however, it would be beneficial to make this clear at the start of the interview and in the Data Linkage leaflet/screen showcards so there is no misunderstanding. Interviewers commented:

"Most happy to link, or explain as you start they are not happy to link partners detail etc."

"... some CM's initially thought we wanted ask them for permission for adding their partners info, rather than speak with partners or request forwarding on email."

In general, the information provided on data linkage was quite thorough and respondents did not have any further questions about the information which was presented.

8.3 Suggestions for improvements

A number of small improvements could be made to the data-linkage section to enable it to run more smoothly. Our recommendations would be:

- To review this section to see if any of the wordiness could be reduced. Could we also shorten this section for respondents who mention at the start that they do not intend to give consent?
- To clarify in the introductory text that we will not ask cohort members to give permission for their partner's data to be linked to Government records. We could also tailor the text of the share screen showcards and the Data Linkage leaflet so it is specifically aimed at cohort members or re-emphasises that partners will have to give their own permission
- To reformat the Data Linkage leaflet in landscape format and/or removing text columns to ensure this information can be viewed easily by respondents without interviewers having to scroll up and down the leaflet
- To consider any actions that could be taken to avoid reminder emails going into respondent's spam folders and/or mitigating the impact of this (e.g. warn respondents and copy in the interviewer so they can re-forward if needed)
- To review the timings of reminders sent to the partners of cohort members. It may not be necessary to wait a week before contacting partners directly
- NB. We note that if we could overcome the organisational IT restrictions that meant we could hand over control to the respondent during the video call interview then this could facilitate the process of the respondents looking through the Data Linkage leaflet pdf.

9 Online Dietary questionnaire

This section reviews the process and materials for administering the Online Dietary questionnaire module via video call.

9.1 Approach

Respondents were invited to complete the Online Dietary questionnaire (ODQ) on two randomly assigned days in the week after their video call interview.

During the CAPI, the interviewer showed the Online Dietary questionnaire leaflet to the respondent on screen (as part of the Leaflets pdf). Interviewers were asked to give respondents time to read through the leaflet, helping them as necessary.

If the respondent said they were willing to do the questionnaire, the interviewer told them the days of the week they would need to record, but explained to the respondent that they would be sent an email after the interview that would include login details and dates.

The day after their video call interview, respondents were sent an email thanking them for taking part. This email included a link to the ODQ.

On ODQ Day 1 and on the ODQ Day 2 the respondent was sent SMS and Email reminders at regular intervals during the day. These reminders included the link and login details for the ODQ.

9.2 Findings

Interviewers found the process of explaining the Online Dietary questionnaire to respondents worked well during the video call. Most respondents had completed the questionnaire before, so they did not spend very long looking at the explanatory leaflet, had few questions about the process, and were usually very willing to take part. As one interviewer commented:

"They were all very willing. Had done it before, or something similar."

Another wrote:

"Very easy, as they all seem to remember doing one before and most happy for me to scroll down pdf fairly quickly without needing me to stop to double check anything."

When introducing this part of the survey interviewers shared the Online Dietary questionnaire leaflet with respondents on their screen. As with the Data Linkage leaflet interviewers asked if the format of this could be improved for future waves. The Online Dietary questionnaire leaflet is in portrait format with text in two columns, so interviewers had to scroll up and down each page twice to enable respondents to read the leaflet. If the text columns are removed or the leaflet is reformatted to be landscape with one page fitting on the screen that would make it easier to read for the respondent.

Encouragingly, the majority of respondents agreed to take part in the Online Dietary questionnaire (42 of the 44 respondents) and this was in line with take-up rates in the previous rounds (see table 9.1). It is worth noting that the video call pilot has a small

sample size which is not representative of the cohort so these findings are not statistically significant.

	BCS70 Video Call Pilot October 2020		BCS70 Video CallBCS70 Pilot JanuaryPilot October 20202020		BCS70 Age 46 Study 2018	
	N	%	N	%	N	%
Willing and able	42	95	110	95	7303	95
Not willing or not able	2	5	6	5	370	5
Total	44	100	116	100	7673	100

Table 9.2 shows that around four fifths of the 42 respondents who were sent the Online Dietary questionnaire went on to complete it for both days. These completion rates are broadly in line with those for the BCS70 January pilot and the Age 46 study.

	BCS70 Video Call Pilot October 2020		BCS70 Pilot January 2020		BCS70 Age 46 Stud 201	
	N	%	N	%	N	%
2 days completed*	34	81	68	62	4746	65
1 day completed*	4	10	13	12	1192	16
0 days completed	4	10	29	26	1365	19
Total	42	100	110	100	7303	100

* Respondents may **not** have completed for their correctly allocated day.

Interviewers commented that a few respondents had contacted them to say they had not received their invite to the Online Dietary questionnaire. Usually it was because the e-mail had gone into their spam folders. IT rectified the problem by sending the e-mails out again. However, if this issue occurred over the weekend, some respondents missed completion on one of the days of their diary. Interviewers felt that it is important that the invitation emails are sent out as soon as possible because respondents are looking out for them. They felt more time should be allowed between the video call interview and the first diary completion day, to allow time to rectify any problems with e-mails disappearing in spam folders. One interviewer also noted that asking respondents to complete the diary on consecutive days could be problematic if they had forgotten to complete the diary on their set day:

"...the respondents were asked, if they missed a day, to complete them as soon as possible afterwards and if it was the first day, then before the second. However, some days were consecutive, and this was not possible."

9.3 Suggestions for improvements

This section worked well so only a few small improvements are recommended. These are:

- In the explanatory text which interviewers read out about the Online Dietary questionnaire we could add a note reminding respondents about when they should receive their invitation and to check their spam folder if it does not arrive
- To consider: Would it be appropriate for the interviewer (or the office?) to be copied into the respondent's e-mail invite to the Online Dietary questionnaire so that they could re-send the e-mail to respondents if needed?
- Reformatting the leaflet in landscape format and/or removing columns on the text to make one page of the leaflet fit on the interviewer's screen. This in turn would save time during the interview and be easier for the respondent to read.

10 Paper Self-Completion questionnaire

This section reviews the process and materials for the Self-Completion questionnaire.

10.1 Approach

There was a paper Self-Completion questionnaire in this pilot. This was posted to cohort members in advance by the office together with the advance letter and leaflet. The advance letter asked respondents to post the questionnaire back when complete in a postage-paid envelope provided.

(This was different to the normal CAPI approach, where interviewers send the selfcomp once they've made contact and arranged an appointment. And, where possible, the interviewer collects the self-comp when they visit for the interview.)

Towards the end of the video call interview, there was a reminder to cohort members to complete and return their questionnaires if they had not already done so. There was an opportunity for interviewers to record in the CAPI if the respondent would like a replacement questionnaire and/or envelope to be sent to them if they had not received it or had lost it before their appointment.

One week after the video call interview, respondents were sent a reminder email that included a reminder to return their Paper Self-Completion questionnaire (and also contact details if they needed to request a replacement). This reminder email was also sent two weeks after the video call interview, together with a text reminding them to return their Paper Self-Completion questionnaire.

10.2 Findings

Interviewers reported that respondents seemed happy to complete the paper questionnaire and there had been no adverse comments. No respondents had commented on the content of the questionnaire or asked for any guidance on completion of any of the individual questions.

Table 10.1 shows the responses recorded in the CAPI regarding the PSC.

Table 10.1 CAPI responses to PSC reminder question	
	N
CM needs a replacement questionnaire	5
CM has already posted PSC	21
CM plans on posting PSC soon	17
CM does not want to complete PSC	1
Total	44
Base: all productive interviews	

Following the end of the video call pilot, the Paper Self-Completion questionnaires returned to the office by respondents were collated. The return rates are shown in

table 10.2, together with the return rates for the BCS70 pilot earlier this year and NCDS. Thirty-one of the forty-four paper questionnaires were returned. Two of the thirty-one paper questionnaires mentioned in the table above were received by the office after the deadline. In addition to the numbers shown in the table above, the office also received back completed paper questionnaires from five respondents who did not complete the main interview.

		BCS70 Video Call Pilot October 2020		BCS70 Pilot January BCS70 Age 4 2020		Age 46 Study 2018**
	N	%	N	%	N	%
Returned	31***	71	90****	78	8,039	94
Not returned*	13	30	26	22	542	6
Total	44	100	116	100	8,581	100

Base: all productive interviews.

*Table includes any questionnaires handed back to interviewer

/nurse but not returned to the office.

* * For BCS70 Age 46 Study this includes dress rehearsal and mainstage.

*** Two questionnaires were returned after the deadline.

**** Six questionnaires were returned after the deadline.

Around two thirds of the paper questionnaires have been returned from the video call pilot by productive respondents (31 out of 44 CAVI interviews). Two of the thirty-one paper questionnaires mentioned in the table above were received by the office after the deadline. In addition to the numbers shown in the table above, the office also received back completed paper questionnaires from five respondents who did not complete the main interview.

The number of questionnaires returned from the video call pilot was broadly in line with the number of returns from the BCS70 January 2020 pilot but lower than that achieved for the Age 46 study. The response rate achieved in the BSC70 January pilot was lower than normal because a higher number of questionnaires were left with cohort members at interview for them to post back.

It seems likely that completion rates of the paper questionnaire from video call interviews will be slightly lower than that achieved in the face-to-face approach because of differences in the way the paper questionnaire is administered and collected.

In the face-to-face approach interviewers hand out the Self-Completion questionnaire when making an appointment with the respondent on the doorstep or put it in the post if arranging the appointment over the phone. The completed questionnaire is then usually handed back to the interviewer or nurse at the time of the interview. The respondent is therefore motivated to complete the survey before their interview and

does not have to post the questionnaire back themselves which in turn leads to a high response rate.

In contrast, in the video call pilot, the respondent was sent the Self-Completion questionnaire at the same time as the advanced letter (which invited them to participate in the study) and no time frame for completion was given. With no interviewer visit made to the house the onus is on the respondent to complete and post back the questionnaire. In the future response rates could be boosted by giving respondents a clearer time frame in which to return the questionnaire and by possibly moving it online.

Feedback from interviewers regarding the paper self-completion return rates included:

- A few interviewers expressed surprise at the relatively low rate of return as most of their respondents had reported that they had returned the questionnaire
- However, a few other interviewers found that many of their respondents had not returned at the time of the main interview. One interviewer commented:

"Many had not got around to doing it yet promised to do it and send. One or two had already posted."

• Some interviewers suggested asking respondents to complete the questionnaire before the main interview may help to boost response rates in the future.

10.3 Suggestions for improvements

- Review the approach to the administration of the Paper Self-Completion questionnaire in relation to the planned CAPI-CAVI approach.
- To boost response rates we recommend giving respondents more guidance on when the self-completion questionnaire needs to be returned:
 - To give more impetus to completion we could ask for the questionnaire to be returned before the main interview. Interviewers could remind respondents to do this when they set up the appointment
 - If respondents have not completed this at the time of interview, then interviewers can remind them to return the questionnaire as soon as possible. This would serve as a second rather than a first reminder as in the video call pilot
 - This approach would more closely replicate the procedure followed on the face-to-face method and hopefully lead to higher response rates
- To consider: Another possibility might be to provide a CAWI version of the PSC questions. A CAWI may be more convenient for some respondents to complete and means the respondent would not need to put the questionnaire in the post. This might boost response rates. We would need to think about how this would sit with the in-interview CASI CAWI. The Self-Completion questionnaire takes around 30 minutes to complete so it would make the interview very long if all these questions were added to a CAWI that was included in the main interview. An alternative could be to provide the self-comp as a web link in a reminder email in cases where the paper version hasn't been returned.

11 Other CAPI Interview modules

This section draws together other comments on CAPI interview modules; particularly on the employment module which was updated to reflect the current COVID 19 situation.

11.1 Approach

The CAPI interview used for the video call pilot was substantively the same as the CAPI interview used for the BCS70 face to face pilot carried out in early 2020 but, as described in section 2.2.3, the interview was shortened to bring it to its target length; and edits were made to the employment and income modules to reflect the pandemic and government responses. In addition one of the cognitive assessments, the letter cancellation task, was removed because this used a physical booklet and would be difficult to do over the video call; the 10 minute CASI interview was replaced with a CAWI section which could be completed during the video call and adjustments were made to the show cards. Some show cards were cut, some questions used CAPI screen shares instead of show cards and some asked interviewers to share pdfs of normal show cards.

In this section we have collated feedback provided on the interview modules, not already mentioned in other sections of this report. Show cards are already discussed in section 5, the CASI CAWI is discussed in section 6 and Cognitive Assessments are discussed in section 7.

11.2 Findings

Interviewers were asked if script changes made to the Employment and Income Module to reflect the Covid-19 situation and the Government furlough scheme made sense for respondents in real life scenarios. Where respondents' employment situations had been affected by Covid-19, interviewers reported no problems, and found the question-and-answer options worked for the respondents they interviewed.

One interviewer suggested a clarification be added into the employment module to explain that contract hours should not include any unpaid over-time:

"Could perhaps add wording of "contract hours" in with description of "usual hours", so the respondent knows not to include any unpaid overtime usually worked in with this figure, which are asked for separately."

The same interviewer noted that when respondents are asked about the Government benefits they receive, many forget to mention child benefit if that is their only one. If the respondent is responsible for a child the interviewer said they always prompt them about child benefit at this question.

One respondent had reservations about answering the financial questions on a Microsoft team's call. They commented

"Didn't realise how detailed and personal the financial questions would be, especially over the internet."

In this instance the respondent was willing to answer but felt he should have been notified in advance. He also stated that if a face-to face interview was not possible he

would prefer a video call to a web or telephone interview. Due to the personal nature of the questions, he felt it is important to build up trust and a good relationship with the interviewer and he felt the video call was the best way to do this.

The detailed information required in the financial questions was mentioned by a few respondents. One respondent said that they would prefer to have a separate paper or online questionnaire with finance questions, ahead of the interview, as they always struggle to answer these questions and another said it would be good to have advanced warning of these questions so they had the right information to hand.

Interviewers were also asked if they had comments about any other parts of the CAPI interview and how it worked administering this via video call. Encouragingly, interviewers were extremely positive about how well the interview worked via video call and did not think any section or questions were hard to administer in this mode.

Interviewers did suggest the Contact Information module could be altered to maximise some of the benefits of the video call. They commented that it would be beneficial to share their screen for most of this section so that the respondent could read their friend and families contacts details themselves and confirm if they were correct. This would save time during the interview.

11.3 Suggestions for improvements

The updates to the Employment and Income module following changes since Covid-19 worked well and interviewers found no problems with other CAPI modules when administered via video call. Therefore there are only a few small improvements which could be made which are:

- Allow interviewers to share their screen more frequently in the Contact Information module to allow respondents to quickly check relations and friends contact details on screen without interviewers having to read everything out
- Consider whether it would be appropriate to make clearer whether contract hours should include or exclude any unpaid over-time
- Consider adding an interviewer prompt on screen to ask if child benefit is received where children live in the household and the benefit has not been mentioned
- In confirmation of appointment we could inform the respondent about the financial section and advise that some respondents find it useful to have a payslip /bank statement/ or account book at hand to help them answer the questions in this section (however we do not want respondents to be put off taking part).

12 Training and guidance for interviewers

This section will cover the training and guidance provided to interviewers for the video call pilot, with a focus on what elements were successful and what improvements could be made. To assess this, it will take into account feedback provided at the debrief, interviewer feedback forms, informal feedback offered at the technical check-in sessions and researcher observations.

Firstly, it will review the technical training sessions, which covered how to use Microsoft Teams and conduct interviews via video call. It will then review how well the BCS70 study briefing and e-ARF training worked via video call.

12.1 Approach

The training for this BCS70 video calling pilot project comprised:

- (Preliminary e-ARF training on 12th August) (2 hours)
- Technical training: Introduction to MS Teams and the video call pilot (25th August) (1.5 hours)
- Technical training: Interviewing using MS Teams (26th August) (2.5 hours)
- (Kantar only: Technical session on 1st September) (1 hour)
- BCS70 Study Briefing (2nd September) (4 hours)
- Homework to practice tasks and go through the interview (4 hours)
- 1-2-1 Technical check-in sessions with the Research Team before fieldwork (planned to be around half an hour)

The guidance documents provided to interviewers included:

- Interviewer Project Instructions
- Interviewer Crib Sheet
- e-ARF instructions

12.2 Technical training and guidance

12.2.1 Interviewer perception

Overall, interviewers have been quite positive about the technical training they received; the feedback forms we have received have categorised the technical training from 'okay' to 'perfect'. Most also said that an appropriate amount of information was provided and that the general approach and structure of training worked well.

All interviewers but one who attended the training were able to conduct successful interviews in field. One interviewer who was originally assigned to the pilot and attended the technical training dropped out because they did not feel able to manage the technical demands of the study. Several interviewers also said that they did not feel

confident at the start of fieldwork. However, they all said that their confidence grew over the course of fieldwork.

Most of the interviewers working on the pilot seemed to agree that a substantial amount of practice was required to get to grips with the technical elements of video call interviewing. A few interviewers said that they would have found a full practice interview with someone familiar with the technology/interview process useful. There were various suggestions on how this could be implemented in practice.

Most interviewers said that the interviewer instructions and crib sheet were very useful and that they regularly referred to both.

12.2.2 Findings

Overall, we have found that the technical training has been well received by interviewers (see section 12.2.1). All interviewers who completed all the training went on to conduct interviews successfully in field.

That said, we have found that a few interviewers needed substantial one-to-one support after the group sessions. Three interviewers needed less than the half an hour researcher time estimated for the technical check-ins, one needed between half an hour and one hour, one needed roughly two and a half hours and one needed significantly more researcher support.

It is also clear from the types of support needed that interviewers joined the pilot with different levels of technical understanding and that some needed substantial technical guidance, outside the scope of the pilot. For example, the two interviewers who required the most support needed help with general technical skills such as how to copy and paste, how to organise electronic documents, how to locate applications and switch between them, how to expand their taskbar, etc. This was a barrier to them engaging with Microsoft Teams and specific processes for video call interviewing.

In terms of specific skills required to conduct interviews via Microsoft Teams, as expected, interviewers struggled most with navigating between windows and sharing materials with respondents. However, we also received quite a few queries about how to adjust settings in PDF documents and how to send interview invitations. We will update training and materials to clarify the points that caused confusion.

Because the technical briefing sessions took place before the BCS70 study briefing, there were also a few instances where questionnaire content, for example the ODQ (Online Dietary questionnaire) and the NART (National Adult Reading Test) were introduced without context/explanation. While this did not cause confusion for interviewers who had worked on BCS70 in the past, an interviewer who was new to the study asked what we were referring to on a couple of occasions.

Administering the training via Microsoft Teams worked smoothly and made some elements, such as showing key features of Microsoft Teams, easier. However, we were not able to run some of the practical exercises while on the call, as it was difficult to identify the various individual problems interviewers ran into. This would be even more challenging at a larger briefing.

In addition to technical skills, our training covered 'soft skills' for video interviewing, including professionalism and how to create rapport with respondents. This included how to adjust lighting, what camera angle is optimal, how to appear engaged, etc. Our observations of interview recordings suggest that further training in this area could be

beneficial. Some interviewers had low camera angles or were zoomed in so that their faces filled most of the screen. We also observed that short silences appeared more uncomfortable for respondents over a video call than they might face-to-face. At the technical training, we advised interviewers to explain what they were doing if there were pauses during interviews. However, we found that some interviewers narrated every step of what they were doing, to the extent that they appeared less engaged with the respondent. There were also times when they drew respondents' attention to minor technical issues, which made the interview appear less professional.

Based on feedback from respondents and comments from interviewers, there is good indication that some interviewers were able to provide basic technical support to respondents, particularly with joining video calls. Going forward, we will also consider asking interviewers to routinely call respondents a few minutes before a scheduled interview to guide them through the process of joining. Additional training and materials might enable interviewers to provide further technical support. In particular we found that interviewers struggled to advise participants on which types of devices and operating systems are compatible with Microsoft Teams and how the process for joining an MS Teams video call might differ in light of this.

We found that some interviewers telephoned the research team for help when they ran into technical difficulties themselves, sometimes during the interview itself. Going forward, we should develop protocols on when interviewers should do this, when they should reschedule an interview and how they should keep respondents engaged while on the phone to the research team.

We should also introduce training on how interviewers can attempt to persuade respondents who are nervous about the technical demands of the project to take part.

12.2.3 Suggestions for improvements

A key finding of the pilot is that training interviewers to conduct video call interviews is relatively time-consuming and therefore costly. We will be assessing our approach to training going forward, in collaboration with the fieldwork team.

Some of the options we will be considering include:

- Compiling a checklist of required and/or useful skills when recruiting interviewers for video call interviews and only selecting interviewers with necessary basic skills
- Placing interviewers into groups for practice interviews. Each group would have a
 mixture of more technically competent and less technically competent interviewers.
 This would allow more technically competent interviewers to help with general skills
 and would require less researcher time
- Investing researcher time into intensively training a small group of interviewers, who could then help provide technical support to new video call interviewers.

More specifically, we would adjust our existing training and materials to clarify/emphasise the following:

- Navigating between pages and programmes
- Sharing material with respondents, including scrolling down in the share tray and the difference between sharing a 'Desktop' and a 'Window'

- Opening PDF documents in Adobe Acrobat Reader and adjusting layout/settings
- Saving and organising electronic files
- Sending interview invitations, including how to check that an email invitation has been sent to respondents.
- Specifics related to the technical tasks involved in video call interviewing (particularly for Kantar interviewers)
- Troubleshooting technical difficulties respondents are likely to encounter. We will also consider developing a laminated flowchart to help respondents identify common technical issues
- How and when to contact research and IT support for technical assistance during interviews
- 'Soft skills' for video interviewing, including an exercise or demonstration on how to fill pauses and create rapport with respondents
- How to persuade participants who are nervous about the technical demands of the study to take part.

We would also avoid using acronyms for study content at the technical briefing sessions and will reassure interviewers that any content being introduced will be covered in more detail at the BCS70 study briefing.

12.3 Training and guidance on BCS70

This section will assess how successful the BCS70 study briefing was. The briefing included a general introduction to BCS70, a summary of the protocols for the study and the content of the questionnaire. It also covered the key changes made for the video call pilot.

12.3.1 Approach

The BCS70 study briefing contained a lot of the same content and materials as the face-to-face briefings carried out for the pilot in January 2020, updated to reflect the changes made for the video call pilot. The key difference for this pilot was that the briefing was conducted via Microsoft Teams.

To avoid the session being too long, we removed a few elements that had been part of the face-to-face briefings, for example the quiz at the end. None of the interviewers who had previously worked on BCS70 commented on these elements being removed.

12.3.2 Findings

We have found that video call briefings are viable for BCS70. The briefing was relatively well received by interviewers and very little content needed to be sacrificed.

Feedback from interviewers has been quite positive. Even interviewers who are familiar with BCS70 said that they found the briefing useful as a refresher and, when asked, did not think we should remove any of the content included. A few interviewers said they would have liked more information on the content of the CASI-CAWI.

Most interviewers also said that conducting the training via Microsoft Teams worked well. At the debrief, a couple of interviewers commented that it was very similar to the face-to-face briefing in practical terms. One interviewer said that the main limitation of video call briefings is that they remove the opportunity for interviewers to interact with each other and could make them feel more isolated.

12.3.3 Suggestions for improvements

Going forward, interviewers would like more information on the content of the CASI-CAWI. This could also be included in the interviewer instructions. We could also consider adding a homework exercise prompting interviewers to explore the practice links provided for the CAWI.

12.4 Training and guidance on the e-ARF

12.4.1 Approach

The e-ARF briefing also contained many of the standard content and materials used for face-to-face e-ARF briefings, again updated to reflect the changes made for video call interviewing. The key difference was that the briefing was conducted via Microsoft Teams.

12.4.2 Findings

Again, interviewers were positive about the general approach and content of the e-ARF training provided. Kantar interviewers with no experience using the e-ARF were able to use it successfully in field. At the debrief, there were some comments that it is relatively straight-forward to use and understand.

That said, we will be making a few minor adjustments to the e-ARF going forward, including changing the wording of questions to allow for the dual approach of face-to-face and video interviewing and adjusting the routing to the screening questions to accommodate different call scenarios.

We will also be clarifying a few points at future training sessions, including how to route to face-to-face or video calls and how to record split appointments in the e-ARF. We will also clarify the outcome codes that should be used for video interviews.

Overall, conducting the e-ARF training via video call worked well. The main limitation was that we were not able to view interviewers' screens and help them individually with using the e-ARF.

12.4.3 Suggestions for improvements

- Clarify our training on how to enter face-to-face and video interviews
- Clarify our training on how to record split appointments in the e-ARF (e.g. make a follow-up appointment to finish off the interview)
- Clarify which outcome codes interviewers should use for video interviews.

13 Overall Assessment

This section draws together the findings of the previous sections into an overall assessment of the pilot and the video calling approach.

13.1 Is CAVI a feasible approach?

The conclusion of this small-scale pilot is that carrying out BCS70 interviews via video call is feasible technically and enables a good quality interview that faithfully replicates that of the CAPI. Participation rates were high and the experience for cohort members and interviewers was positive, but the approach will exclude some cohort members who do not have the required technology or capability.

73% of the pilot respondents (44 out of 60) were willing to participate and successfully completed a video call interview. This might have been slightly higher with a longer fieldwork period. We note that the pilot for this sample was recruited to be more engaged/willing than the sample as a whole and this will have influenced response levels. 29 out of the 30 respondents who had previously said they were willing to try a video call interview completed an interview in this pilot, and 15 out of the 30 respondents who hadn't previously indicated this completed an interview.

Only three respondents were unable to take part in an interview because they didn't have a suitable device. One respondent tried to do a video call interview but their internet connection on the day wasn't good enough to join the call. The other 12 respondents who were unproductive were for reasons largely unrelated to the video calling approach.

To take part respondents just need an internet-connected device they can use for a private video call, an internet connection and a willingness to have a go. Some respondents were initially hesitant about their ability to do a video call interview but, with encouragement, successfully completed one. Six respondents mentioned they had got some help from a family member to join the call.

The vast majority of respondents were positive about the experience of taking part in a video call interview.

The interviewers for this pilot were selected as being more technically competent than average. This was based on the subjective judgment of field managers – and, in some cases, was perhaps based more on technical competence with using interviewing software rather than aptitude to learn to carry out video call interviews. The six interviewers were successfully trained to carry out interviews via video call, but there were different levels of starting knowledge and some interviewers needed quite a bit more training than others. Carrying out an interview via video call requires development of some technical skills that are new to interviewers. In view of this, we suggest that for wider scale rollout it would be most cost-effective to train a subset of interviewers to be focused on video call interviewing. At this stage it would not be cost-effective to train all interviewers to be competent at video calling.

The components included in the BCS70 video call interview worked well. We note however that some sorts of survey measures are not possible to collect via video call (e.g. bio-measures collected by nurse visits). And some types of cognitive assessment may not work (e.g. the letter cancellation task).

We suggest that CAVI would be an approach that could work for NCDS as well as for BCS70. The NCDS interview and approach is similar in many ways to BCS70. However, there are some differences that would need to be thought through:

- NCDS has an additional paper self-completion that is provided to respondents. This would need to be sent to the respondent in some form following their video call interview
- NCDS currently uses paper data linkage consent forms for both cohort members and partners so we would need to consider if we can use the same approach for NCDS as used for data linkage in the BCS70 video call pilot
- NCDS interviews include a nurse visit. These can only be done face-to-face so, in a video call interview situation, the interviewer would have to ask at the end if the respondent would be willing to have a f2f nurse visit. If they are not willing, or if this is not possible at the time, we might want to do that at a later date.

Like BCS70, NCDS has a CASI module which would potentially need reprogramming as a CAWI. Like BCS70, NCDS includes the letter cancellation cognitive assessment so this would need removing from the video call interview.

13.2 How can CAVI fit with other modes?

Video calling provides a feasible data collection option for many but will not be technically possible for a subgroup of cohort members. Further, the lack of an inperson approach to encourage participation is likely to lead to lower response rates overall.

It is envisaged that, where Covid-19 restrictions allow, CAVI would be a mode offered alongside a CAPI approach, with those unable or unwilling to allow an interviewer into their home offered CAVI. For those who are also unable technically to conduct a CAVI interview, a CATI approach may be necessary. The anticipated benefits of the CAVI approach over CATI are the minimisation in measurement differences, the use of showcards, the opportunity to maximise agreement to data linkage, the ability to do a wider variety of cognitive assessments and to incorporate a CAWI.

The table below summarises the feedback from respondents and interviewers on how video call interviewing compares with face-to-face and telephone interviews.

Table 13.1 Comparison of video call interviewing with face-to-face and telephone			
	Video call is better	Video call is not as good	
Comparison with face-to-face interviewing	Avoids the need for interviewers to travel May be less intrusive on households than a face-to-face interview since no- one is coming into their home (no need to tidy up or make cups of tea) Respondents may find it easier to fit in a video call interview if busy than a face- to-face interview Respondents can join from wherever they are – they don't need to be at home	Not quite as personal as face to face but good Can't always see/hear who is in the room with the respondent and might overhear the interview Not quite so easy to judge whether the respondent is tight for time	

	In Covid times, safer than face to face interview for vulnerable CMs	
	Maybe CMs are a bit less prone to chatting via video call interview	
	Novelty value for respondents - some mentioned they were pleased that they had managed to do it and felt some sense of achievement	
Comparison with telephone interviewing	Better than a telephone interview - easier to build rapport because you can see facial expressions and they can see you	
	Can show material on screen	

Face-to-face interviewing may not be possible at certain times or in certain geographical areas or with certain respondents. This will also be affected by how national and local responses to Covid-19 develop.

An important consideration is whether to "push" a face-to-face mode, or to present the video call option up front. Options to consider might be:

- 1. Offer a face-to-face interview but if not willing then offer a video call interview
- 2. Offer a video call interview but if not willing then ask if a face-to-face interview is possible
- 3. Offer a face-to-face or video call interview and give the respondent free choice (this choice could be written into the advance letter sent to respondents)

Our current expectation on restarting fieldwork is that interviewers would initially conduct a Covid-19 screening interview over the phone, with this conducted on the doorstep where it has not been possible to make contact. It will therefore mostly be over the phone that the options would be provided.

There are operational considerations relating to the movement between CAPI and CAVI (and CATI), particularly in relation to whether all interviewers would be trained to conduct the interview in any mode. Given the technical skills required and the improvements made with familiarity with the approach, there is a case for focusing CAVI interviews on a smaller group of interviewers. This would mean that cases would need to be reallocated to this group where CAPI interviewers encountered cohort members who did not wish to conduct an in-home interview.

13.3 Summary of suggestions for improvements

The details of our suggestion for improvements to the video call approach are provided in the relevant sub-sections in each chapter of this report.

Our key suggestions are as follows:

- Simplify the text of the MS Teams calendar invite sent to respondents so it is really clear what to do and what to click on to join the video call (nearly half the respondents experienced some difficulty in finding the link and joining the call)
- Review whether it is possible to make the process of show cards any quicker, including whether any reductions can be made to the number of showcards shown (interviewers reported that showing show cards is a bit fiddly)
- Reformat the NART showcard so that the bottom line is not hidden by the MS Teams video call taskbar
- Update the format of the information leaflets to be more suitable for showing onscreen during a video call (interviewers reported that the current format necessitates scrolling up and down the page)
- Review the format in which the respondent CASI CAWI links are provided to interviewers, to make it as easy as possible to find and send the correct link (for example, in the CAPI, provide the unique link in a format that can be copied and pasted by the interviewer and also display a simplified unique URL such that the unique login is identifiable (so that, if necessary, the interviewer can tell them to go to the generic URL, then provide the login code) (so display twice on screen)
- Separate out the CAPI screens in the Word Recall section so that it is possible to play the .wav file to the respondent without them seeing the list of the words onscreen
- Review whether it is possible to make any reductions to the text respondents are required to read in the Data Linkage section (interviewers reported that this section seemed long)
- Review the approach to the Paper Self-Completion questionnaire and to the NCDS LHW in relation to the approach for the CAPI-CAVI
- Refine the content of interviewer training to focus more on certain aspects (notably sharing screens, navigating between different programs and windows and keeping the respondent video window visible throughout) (since these are aspects that proved most tricky for interviewers in the pilot)
- Refine the format of interviewer training to include more emphasis on practice and interviewers learning from each other (since the Research Team did a significant amount of ad hoc 1-2-1 training for some interviewers during this pilot)
- Brief the NatCen IT Helpdesk/Field Team champions so they can better help support interviewers in field (since a considerable number of queries came via the Research Team)
- Consider the other suggestions for improvements in the different sections of this report. CLS and NatCen to agree which are priorities for action and/or if any suggestions are not appropriate for taking forward.

13.4 Recommendations

Move ahead with developing and testing an integrated CAVI-CAPI approach

Having demonstrated the feasibility of the CAVI approach, and given on-going concerns about the impact of Covid-19 on cohort members' ability and willingness to

allow an interviewer into their home, we recommend moving to another stage of testing that integrates CAVI with CAPI (with the recommended improvements made to the CAVI approach).

A substantial pilot with the NCDS cohort

The positive experience on BCS70 suggests that there are no obvious barriers to implementing the same CAPI-CAVI approach with the older NCDS cohort. A pilot on either study would be informative for the other, given that many of the aims would relate to the evaluating the process of integration. However, given we have yet to test the approach with the older NCDS cohort – who we would anticipate being more likely to experience both technical barriers and health-related reasons for not allowing interviewers into their homes – we think we would learn most from a pilot with this cohort. This would also include gaining insight into the level of agreement to nurse follow-ups overall and specifically within the CAVI mode.

Our suggestion is that a reasonably large pilot of 300 issued NCDS cases would provide good evidence of response rates to the study overall, which could be compared with those achieved pre-outbreak. Even though these response rates will not be directly comparable, we would still expect them to be directionally relevant for BCS70. We would anticipate this NCDS pilot would provide sufficient CAVI interviews (perhaps by design, with some participants offered this first) for an assessment of this mode to be made for the cohort.

There remain points to discuss in how the pilot should be implemented. This includes the general Covid-19 protocols for face-to-face fieldwork that NatCen are developing and testing currently in other studies (screening for symptoms via telephone / on the doorstep, use of PPE, distancing/infection control during in-home interviews etc.). We will also need to consider:

- Whether to push face-to-face as our preference and in what situations
- Whether the initial approach will be the doorstep or by telephone for those cases that had previously been designated as visit-first (we assume it will be by telephone for those designated as telephone first)
- Whether to include the nurse follow-up in the pilot or leave this to a later stage. (A separate NCDS nurse pilot is planned which will provide findings on the new protocols for nurses)
- Timing we suggest fieldwork in March/April 2021, but much will depend on the level of infections and the response to this
- As things stand with MRS guidelines, Kantar would not be able to carry out face-toface interviews in this period. They would still be able to conduct video calls were this to be operationally workable
- We would need to consider which geographical areas to use for the pilot but would expect the sample to be selected to be representative of the wider sample of cohort members.

A post-pilot decision-point: soft launch vs pilot for BCS70

Depending on the findings from this NCDS pilot, we would then consider whether a second pilot with BCS70 cohort members would be required. Our suggestion is that, if possible, we would move straight to the planned soft launch for BCS70, omitting

another pilot, given we would not expect to learn substantially more about the CAVI approach by this point. This has the advantage of being quicker and more cost-effective than conducting a further pilot, followed by a main stage launch.

However, a reason to prefer a pilot to the soft launch would be if there remained significant concerns about whether response rates would be sufficiently high overall for CLS to be content to carry on with the study in this period. There may also be concerns about the impact of COVID-19 on response and the complex interaction between the pandemic and people's response to surveys in any mode. If we find response rates for NCDS is similar to pre-outbreak levels we may be confident about a soft launch approach. But were we to find that NCDS response rates were significantly lower overall, we may fear a similar or more substantial response rate drop among the (historically less compliant) BCS70 cohort and prefer a pilot with a smaller number of cases to reduce risk.

We would work on preparing for the BCS70 soft launch alongside the NCDS pilot (as originally envisaged for the soft launch planned for June 2020, but with a combined CAPI-CAVI approach). We would agree a point towards the end of the NCDS pilot when we would look at the emerging findings and make a decision on whether to proceed with the BCS70 soft launch as planned, whether to delay it or whether to commission another BCS70-specific pilot.

Web-CAPI for BCS70

We note that CLS are considering another option for both studies – that of web-CAPI to replace the CAPI-only approach. Our recommendation would be to proceed with the NCDS pilot and use the decision-point described above to make the call on whether to go ahead with this approach. This is perhaps a later point than CLS had anticipated, but provides more time for evidence to be amassed, and web interviews can be achieved relatively quickly once systems are in place, with smaller-scale CAPI fieldwork to follow at a later point.

Given that NCDS's nurse visit will require the resumption of in-home interviewing at some stage, and the fact that a large number of CAPI interviews have already been conducted, this seems to be a lower likelihood compared with BCS70, and further suggests the next pilot should be with this cohort.

13.5 Cost implications

The decision on whether to move ahead with a CAPI-CAVI approach, or a web-CAPI approach, will partly depend on the relative costs involved, and options for working within the existing budget. Detailed cost analysis is provided separately, but we highlight the areas where there are implications for costs with the implementation of the CAVI approach.

The additional costs of this would include:

- Making the suggested improvements to the video call approach based on the findings of this pilot – this will include the review and amendment of materials, CAPI program, CAWI program and training for BCS70, and the full implementation for NCDS
- Carrying out the recommended CAPI-CAVI pilot to understand likely response rates in field with NCDS cohort members. The additional costs relate to the work to

evaluate set up and evaluate a small-scale operation in addition to the main stage – and to implement recommendations of the pilot ahead of a main stage

- Training sufficient numbers of interviewers in video call interviewing at NatCen and Kantar. Further discussion is needed within NatCen and Kantar to settle on the approach to the interviewer administration, but, given the technical demands of the role and the value of experience in building confidence and expertise, it is likely that we will move ahead with training a specialist group of interviewers rather than the whole panel of interviewers working on the studies. Cases would be reallocated to this group from CAPI interviewers where cohort members state a preference for a video call. Costs for this approach will depend on a range of factors including:
 - o The optimal number of specialist interviewers to brief
 - o How this group and the CAPI interviewers will be incentivised
 - Who will make the initial attempt to trace and contact the respondent and persuade them to take part
 - o Whether video call interviewers also do face to face interviewing
- Setting up systems (processes and IT) to manage a combined F2F/VC fieldwork approach
- Added administrative costs of duplicating allocations amongst Field Managers and Logistics Team to identify and allocate cases to both a recruiting fieldworker and interviewing fieldworker
- PPE for interviewers carrying out face-to-face visits or face-to-face interviews
- The BCS70 CAPI interview is still slightly longer than originally costed for which may have some cost implications for fieldwork
- We would like to avoid the cost of developing a telephone version of the interview but could consider this as an option depending on the findings of the pilot.

There are also potential cost savings with the CAVI approach, driven by the reduced travel costs. The precise savings realised will depend on the proportion of cases completed in this mode and the efficiency of moving cases between interviewers.

Finally, costs will vary depending on the overall response rates achieved. Lower response rates will result in a lower overall cost, although this may not be a substantial saving where interviewers are expending greater efforts that anticipated (the saving for NCDS of lower response rates to the interview is greater, given the nurse follow-up). Savings could be made by excluding some cases from a CAPI approach, pushing them instead to a CAVI or CATI approach (or not issuing them at all). This may be less attractive for NCDS given the aim to maximise response to the in-home nurse visit.